

FIG. 1
(Prior Art)

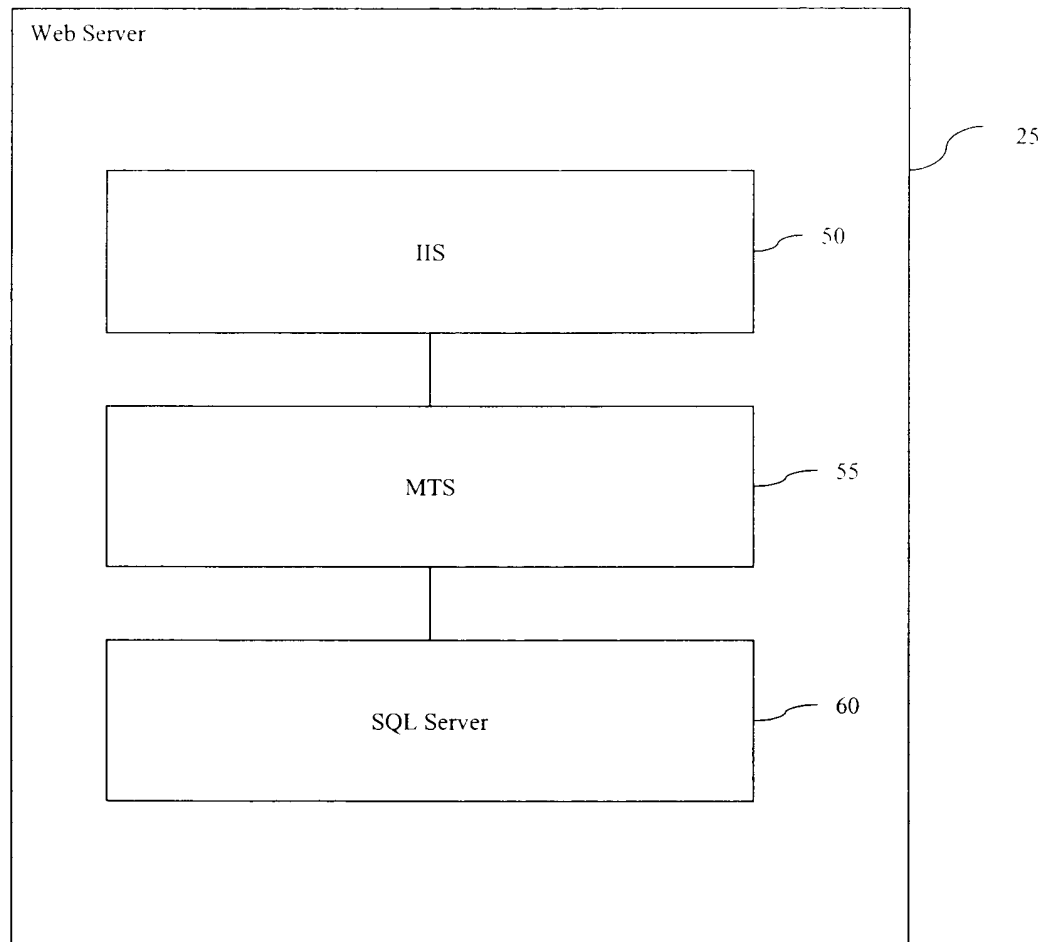


FIG.2
(Prior Art)

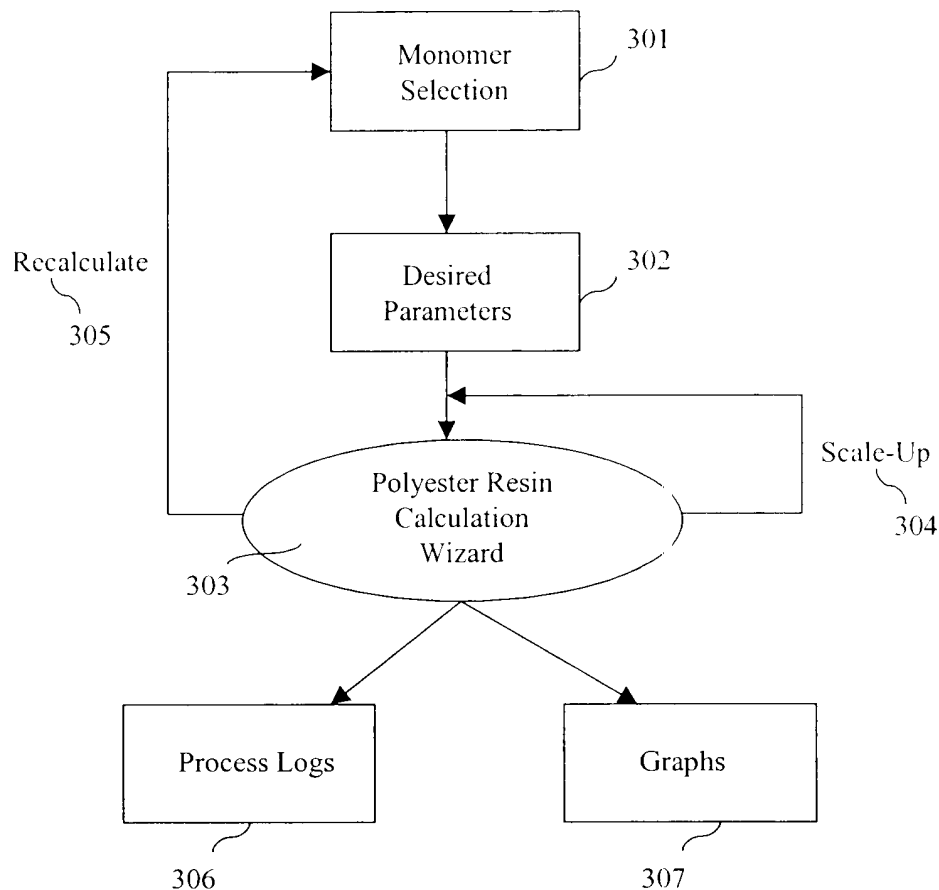


FIGURE 3A

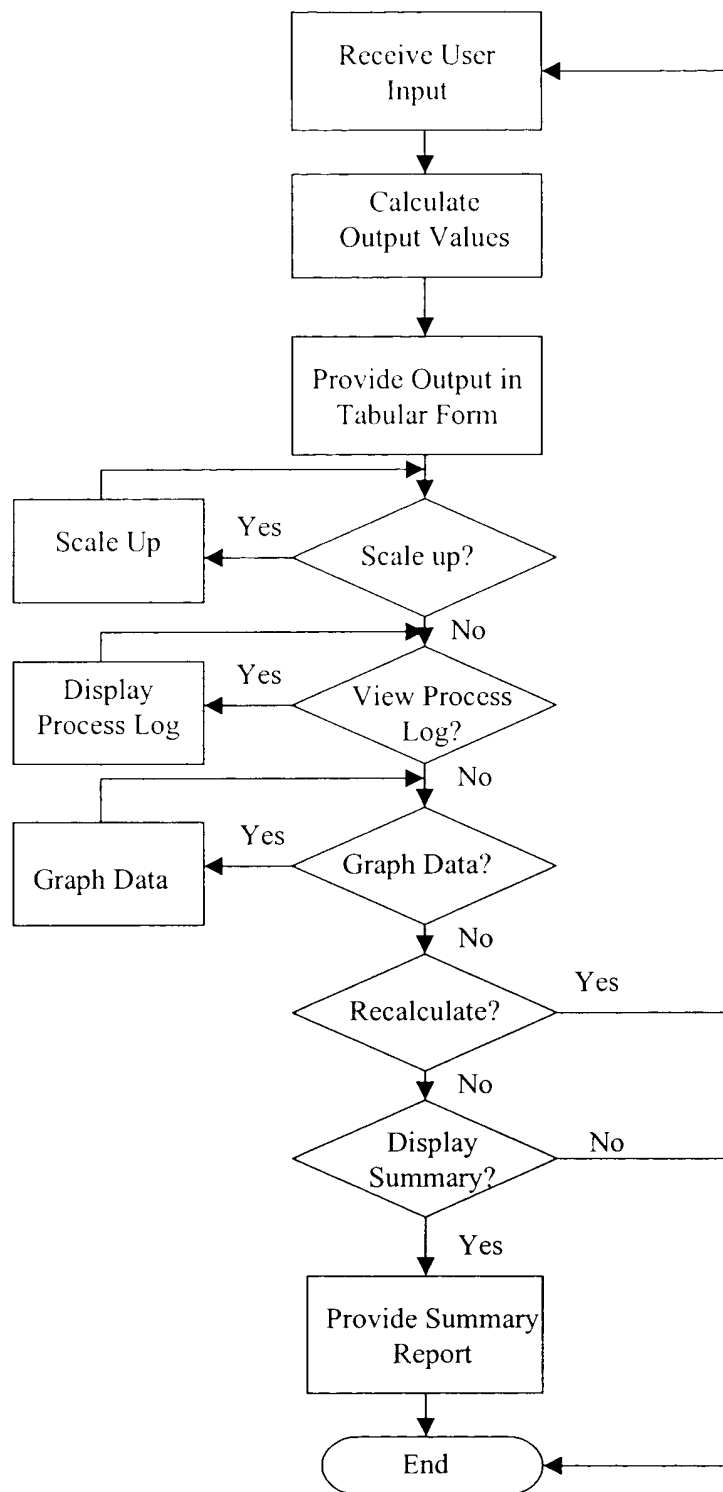


FIGURE 3B

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Back Stop Home Favorites Print History Full Screen

Address http://www.eastman.com/Wizards/ResinCalculatorProgram/RC_MonomerSelect.asp

Wizard **Polyester Resin Calculation** **EASTMAN**

Contact Us 391 How To Use The Wizard 312 Close Window 393

Monomer Selection

* = Required Field

Designated Resin Name: 310

Monomer Selection: * 314

Click here to Add Unlisted Monomer 390

Excess: 352

Hydroxyl 354

Acid 354

Add Selected Monomers to the table below 316

Name 330	Molecular Weight 332	Acid Groups 334	Hydroxyl Groups 336	Condensate from the Acid 338	Condensate from the Hydroxyl 340	Weight Fraction Monomer in Resin 346	Weight Fraction Moiety in Monomer 348	Raw Material Cost 350	Delete 320A
1,6-Hexanediol	118.16	0	2	0	9	0.847676	0		Delete 320A
2,6-Naphthalenedicarboxylic Acid 322	216.11	2	0	9	0	0.916709	0		Delete 320B

Clear all Monomer Selected 356

Click here to Continue 356

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FIGURE 3C

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Address: http://www.eastman.com/Wizards/ResinCalculationWizard/ResinCalculationWizard.asp

Wizard
Official Solutions

Polyester Resin Calculation

EASTMAN

Contact Us How To Use The Wizard Close Window

* = Required Field

Add New Monomer

HELP?

Monomer Name		330
Molecular Weight		332
Acid Groups		334
Hydroxy Groups		336
Condensation from the Acid		338
Condensation from the Hydroxy		340
Weight Fraction Monomer in Resin		346
Weight Fraction Mole in Monomer		348
Raw Material Costs		350

344 Cancel and Return To Monomer selection screen Click Here To Add Monomer 342

NOTE: The values entered by the user will not be stored in Eastman Database

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FIGURE 3D

Polyester Resin Calculation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/ResinCalculationProgram/1-1-1-MonomerCalc.asp

Wizard
TECHNICAL SOLUTIONS

Polyester Resin Calculation **EASTMAN**

[Contact Us](#) [How To Use The Wizard](#) [Close Window](#)

[Return To Selection Screen](#)

Parameters for Hydroxyl Excess Resins

*** 0 Parameters Remain Unspecified *** [HELP?](#)

Excess Hydroxyl Equivalents, % Hydroxyl Equivalent Weight @ Acid Number [HELP?](#)

Patton (K) Constant Number Average Molecular Weight, M_n [HELP?](#)

Use Acid:Hydroxyl Ratios ☐ Yes ☐ No Batch Size [HELP?](#)

Weight Ratios & Weight % ☐ Charge ☐ Final ☐ Charge ☐ Yield

[Done](#) [Internet](#) [HELP?](#)

Monomer	Molar Ratios	Weight Ratios	Weight %
1,6-Hexanediol	<input type="text"/>	<input type="text"/>	<input type="text"/>
2,6-Naphthalenedicarboxylic Acid	<input type="text"/>	<input type="text"/>	<input type="text"/>

[Clear all Parameters](#) [Click here to Continue](#)

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FIGURE 3E

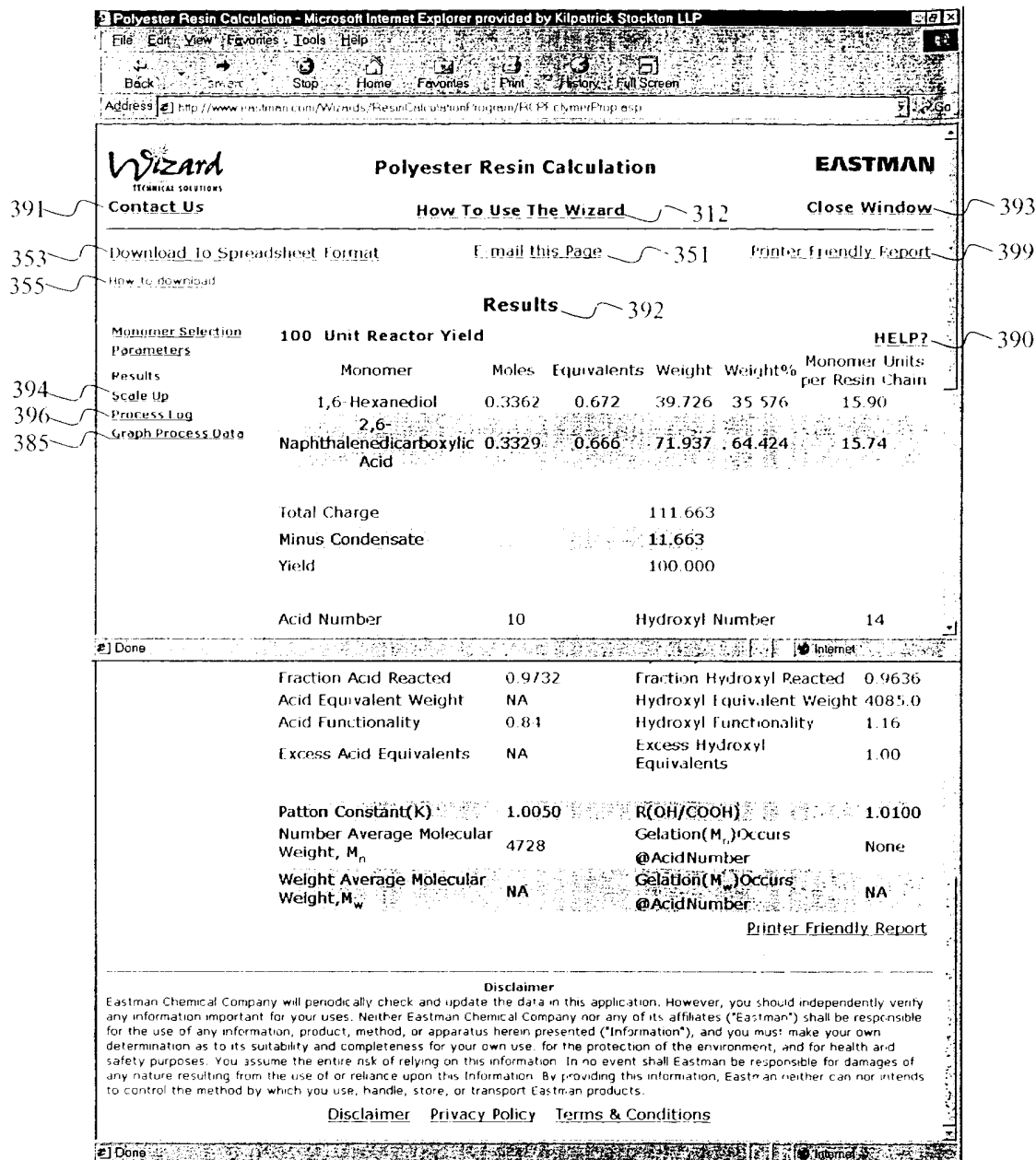


FIGURE 3F

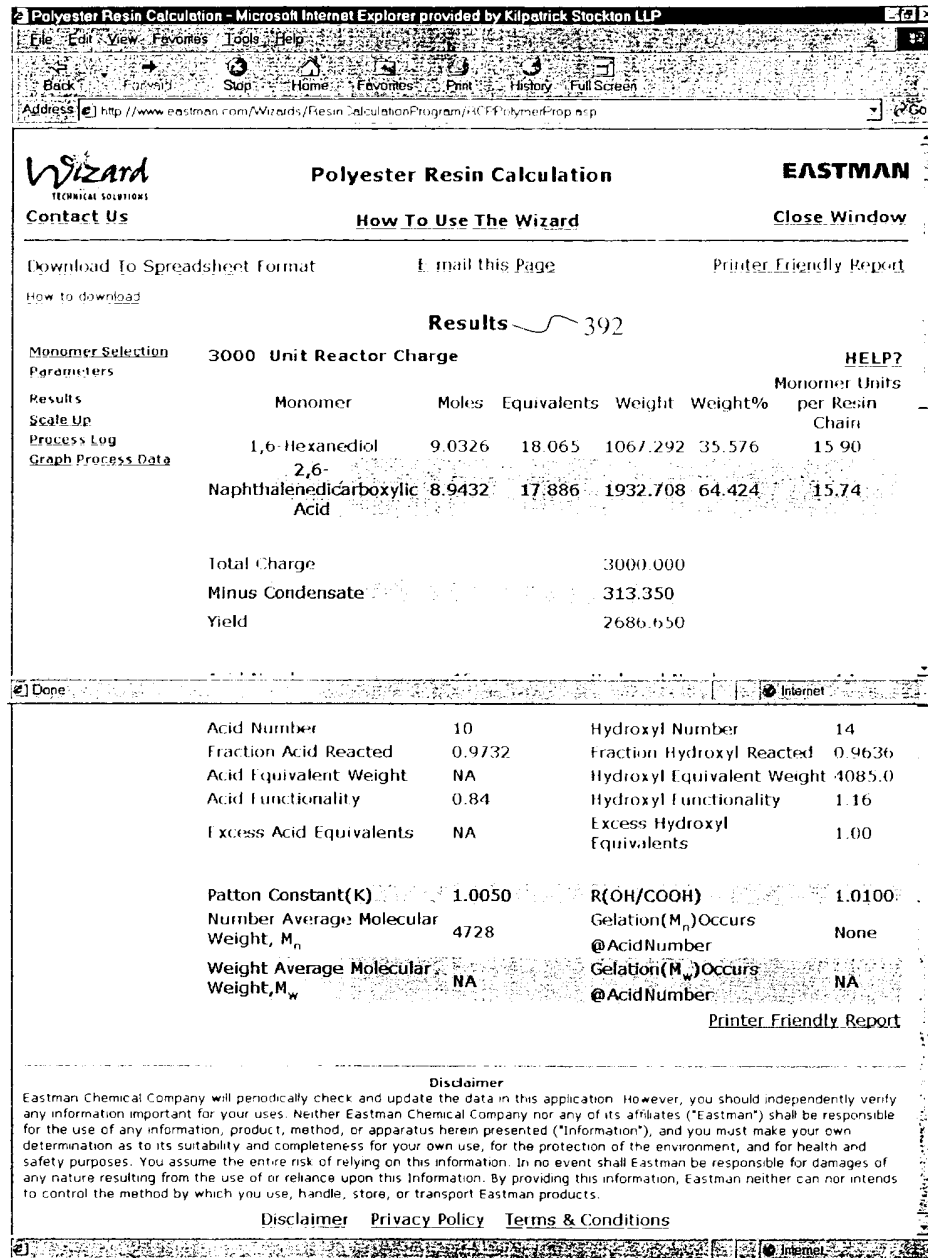


FIGURE 3G

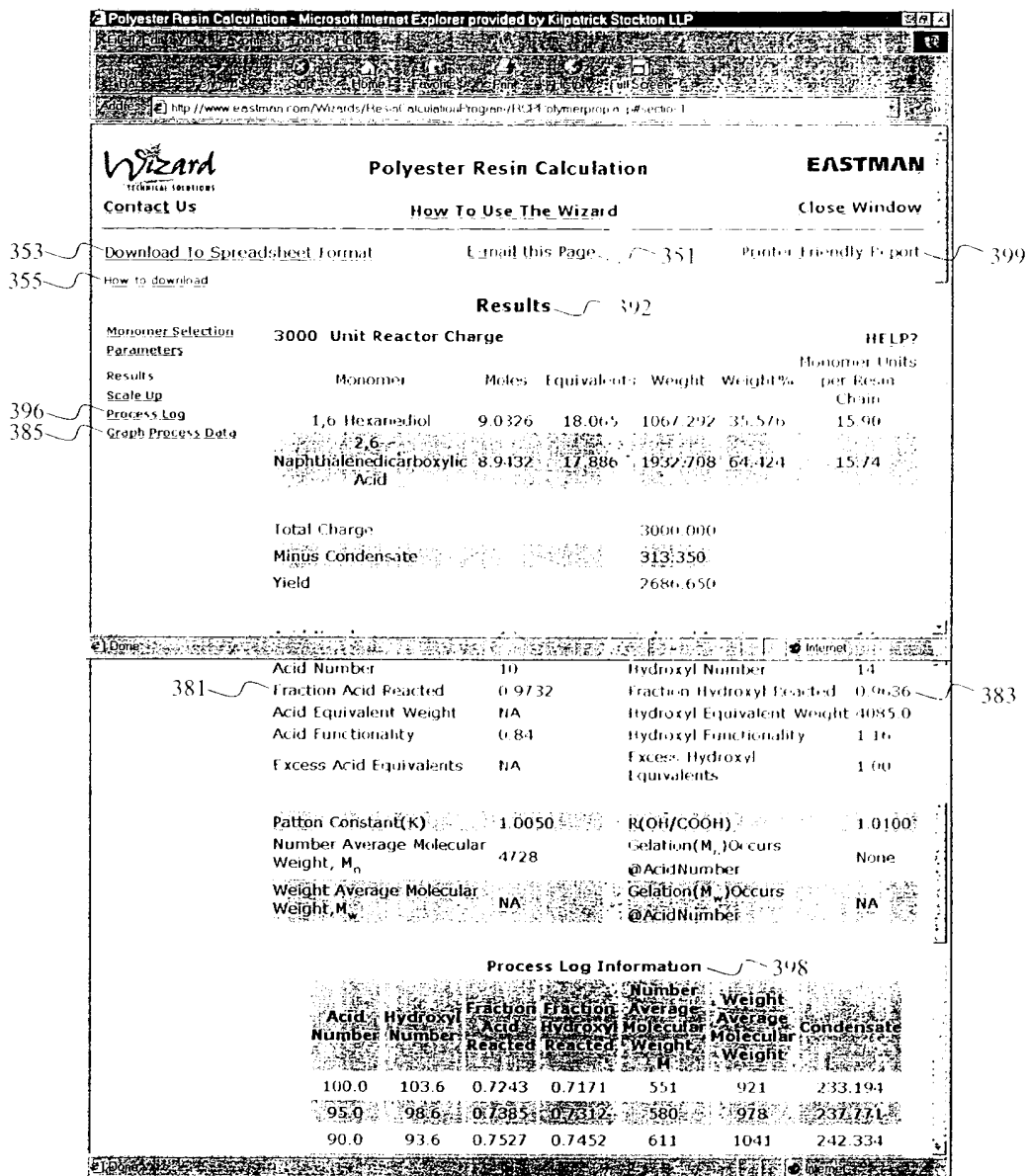



FIGURE 3H

Graph Process Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address http://www.eastman.com/Wizards/ResinCalculationProgram/RCFGraphInfo.asp?Excess=True


Contact Us

Polyester Resin Calculation

EASTMAN

How To Use The Wizard

Close Window

Graph Process Data

Select Parameters to Graph

Monomer Selection
Parameters
Results
Scale Up
Process Log
Graph Process Data

HELP?

Enter Acid Number Range

100 0 5
Upper Lower StepSize

One X coordinate and two Y coordinates may be selected.

387

Parameters	X-Axis	Y-Axis
Acid Number	<input checked="" type="checkbox"/>	
Hydroxyl Number	<input type="checkbox"/>	
Fraction Acid Reacted	<input type="checkbox"/>	
Fraction Hydroxyl Reacted	<input type="checkbox"/>	
Number Average MW		<input checked="" type="checkbox"/>
Weight Average MW		<input type="checkbox"/>
Condensate		<input type="checkbox"/>

Create Graph

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FIGURE 3I

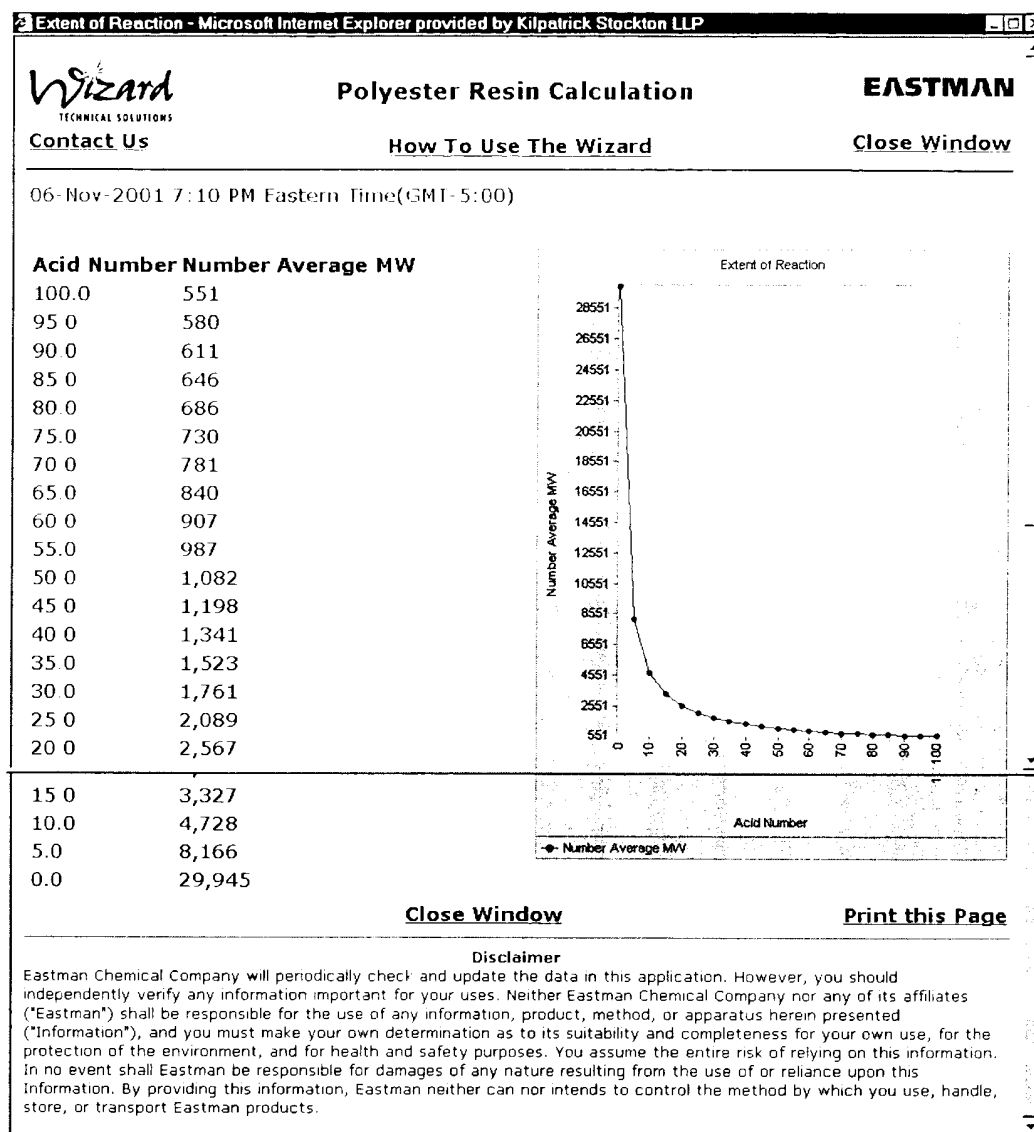


FIGURE 3J

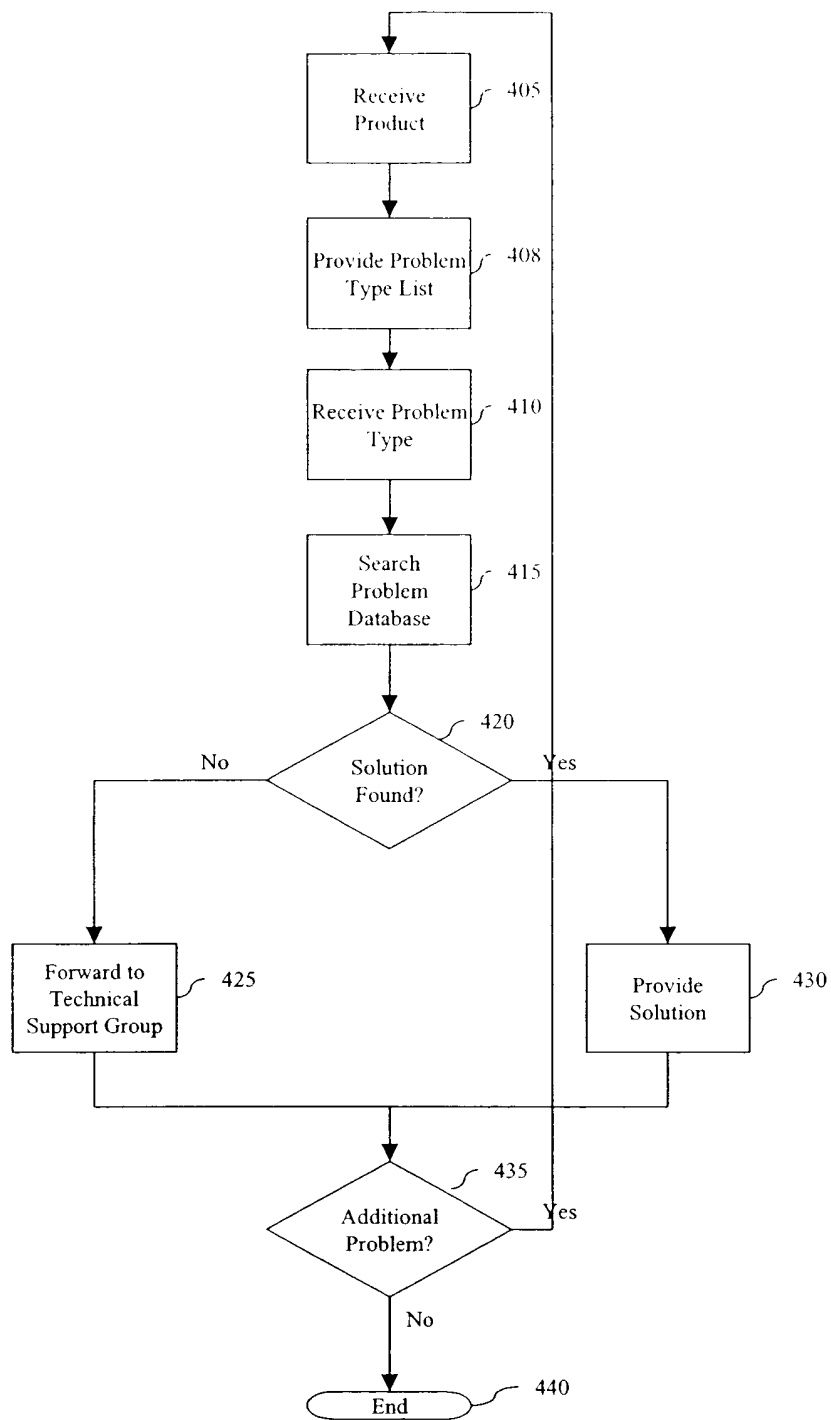


FIG. 4

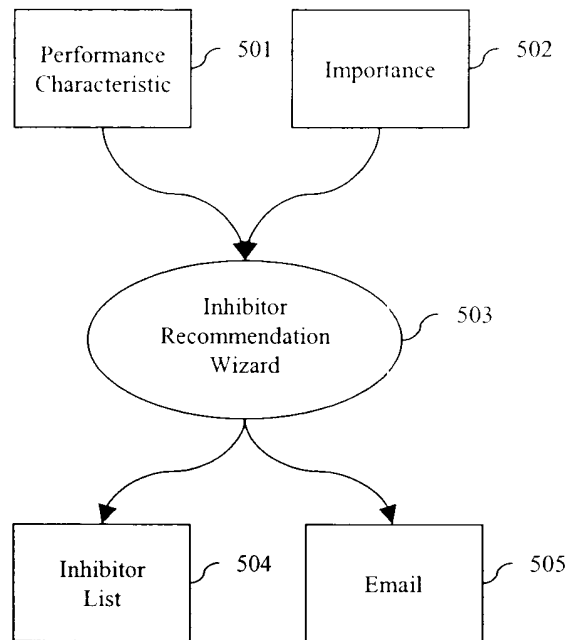


FIG. 5A

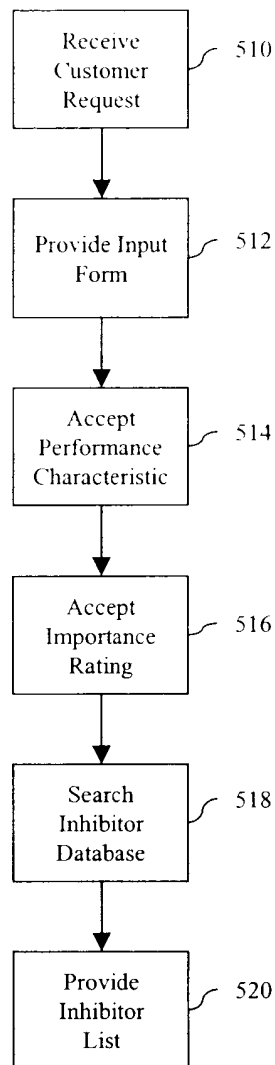


FIG. 5B

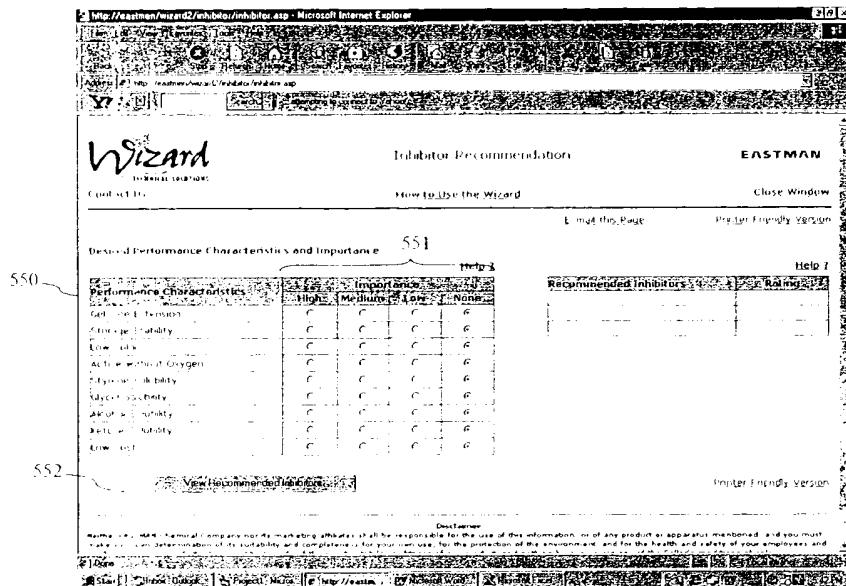


FIG. 5C

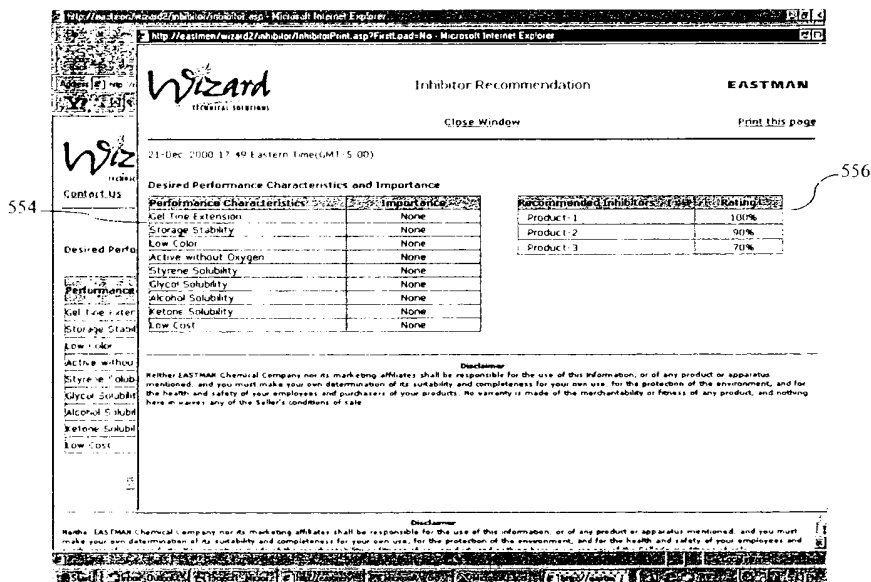


FIG. 5D

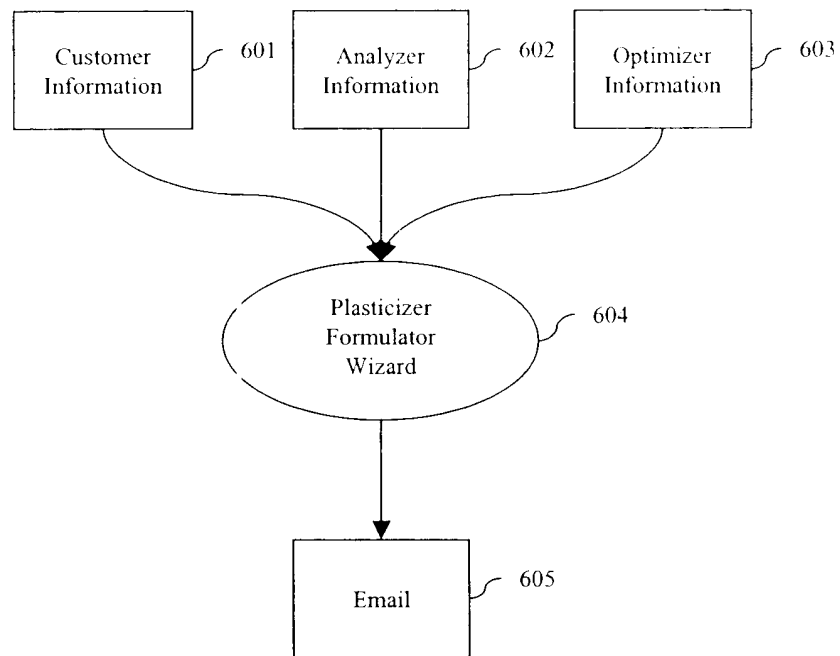


FIG. 6A

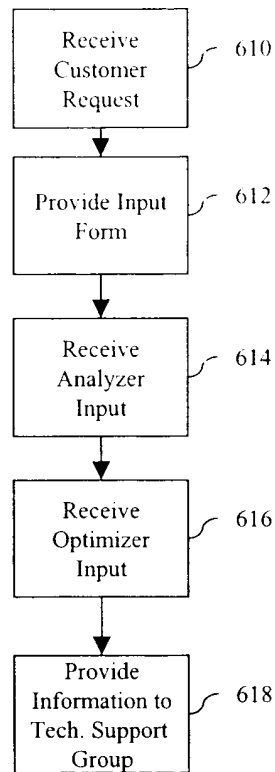


FIG. 6B

Plasticizer Formulator - Microsoft Internet Explorer

Wizard Plasticizer Formulator **EASTMAN**

Contact Us How To Use The Wizard Close Window

Required Field

620 ANALYZER 621 622 Return to the Customer Information

Ingredients (Must include a minimum of one PVC Resin and one Plasticizer)	Part (Parts per Hundred Resin) Required field to predict physical properties	US Dollar/Pound Required field to calculate formulation cost
PVC Resin 1		
PVC Resin 2		
Plasticizer 1		
Plasticizer 2		
Plasticizer 3		
Plasticizer 4		
Plasticizer 5		
Expanded Soybean Oil		
He of Stab		

FIG. 6C

Plasticizer Formulator - Microsoft Internet Explorer

Optimizer

Comments:
Enter your comments for Analyzer.

Physical Property Selection:

630 SPECIFIC GRAVITY
 631 DENSITY TEMPERATURES AT SEC
 TENSILE STRENGTH PSI

Select at least one property for the formulation.
 Hold down the CTRL key, while selecting multiple properties.
 Click PPLY to enter property value

Physical Property	Cost/Pound
Ingredient Names (Must include a minimum of one PVC Resin and one Plasticizer)	Required field to calculate formulation cost
PVC Resin 1	
PVC Resin 2	

FIG. 6D

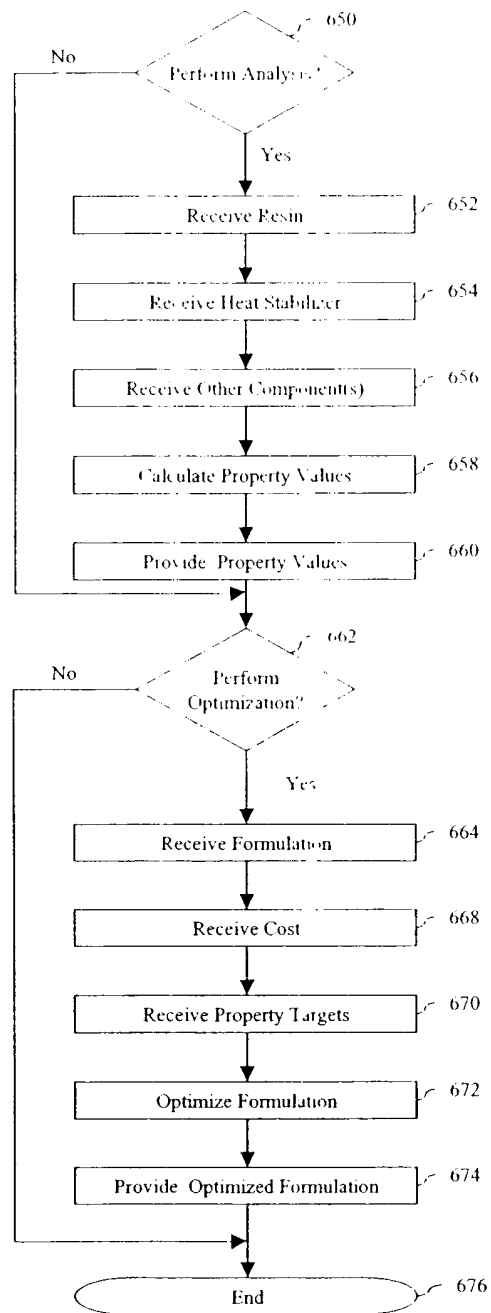


FIG. 6E

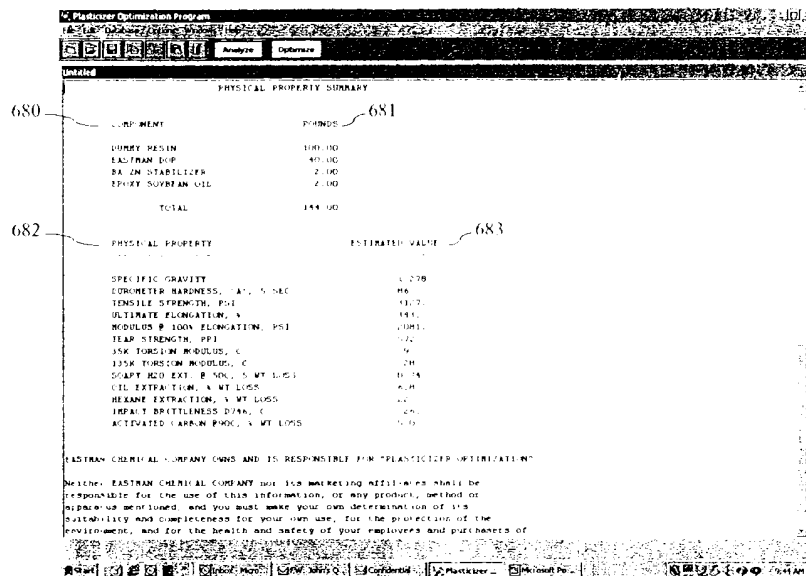


FIG. 6F

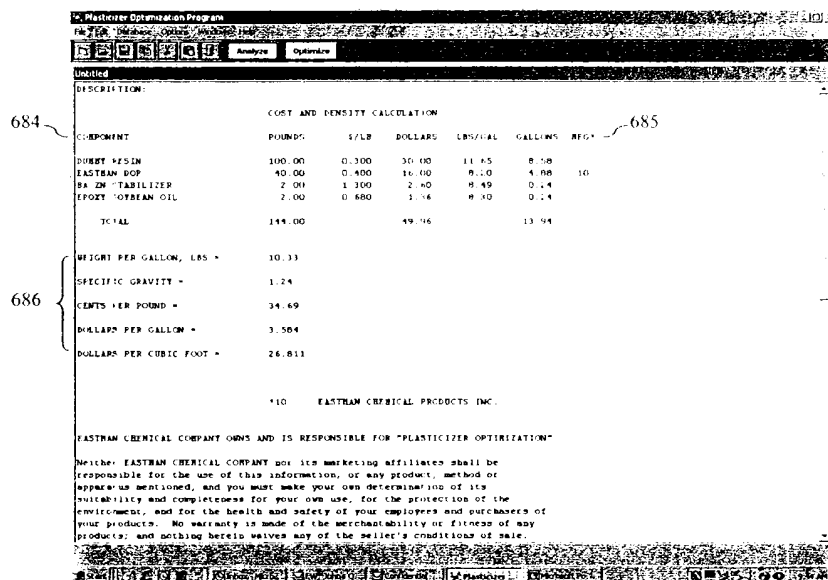


FIG. 6G

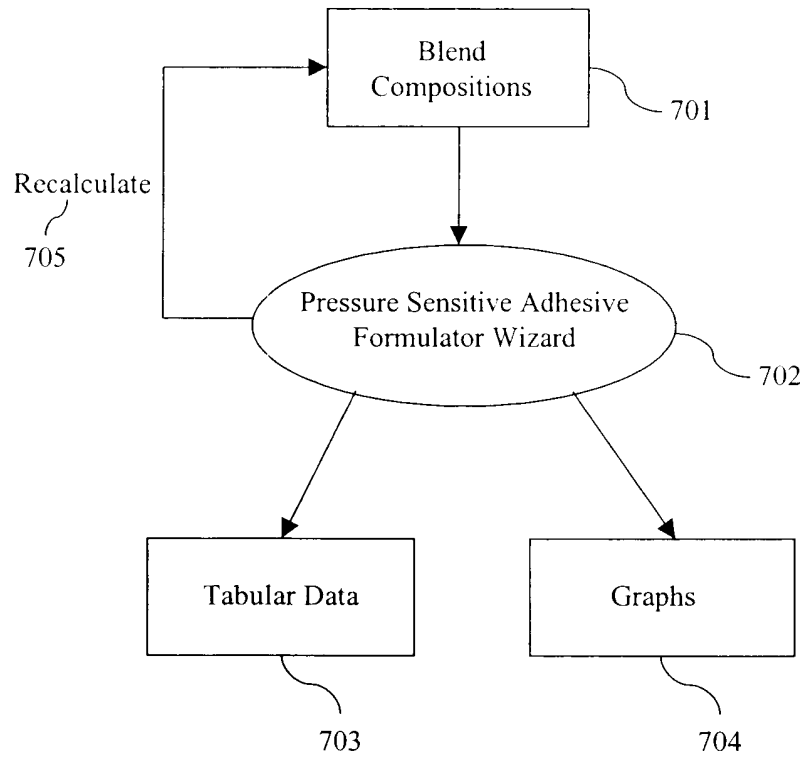


FIGURE 7A

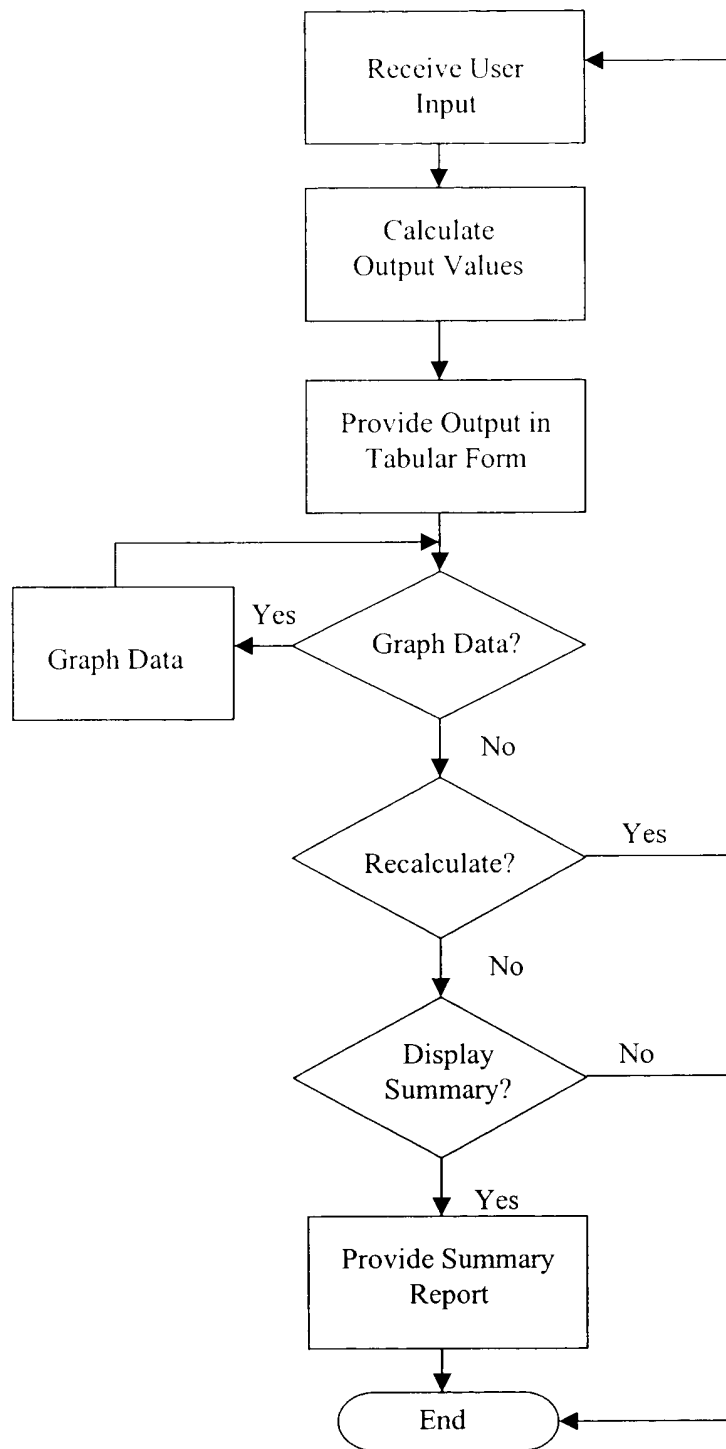


FIGURE 7B

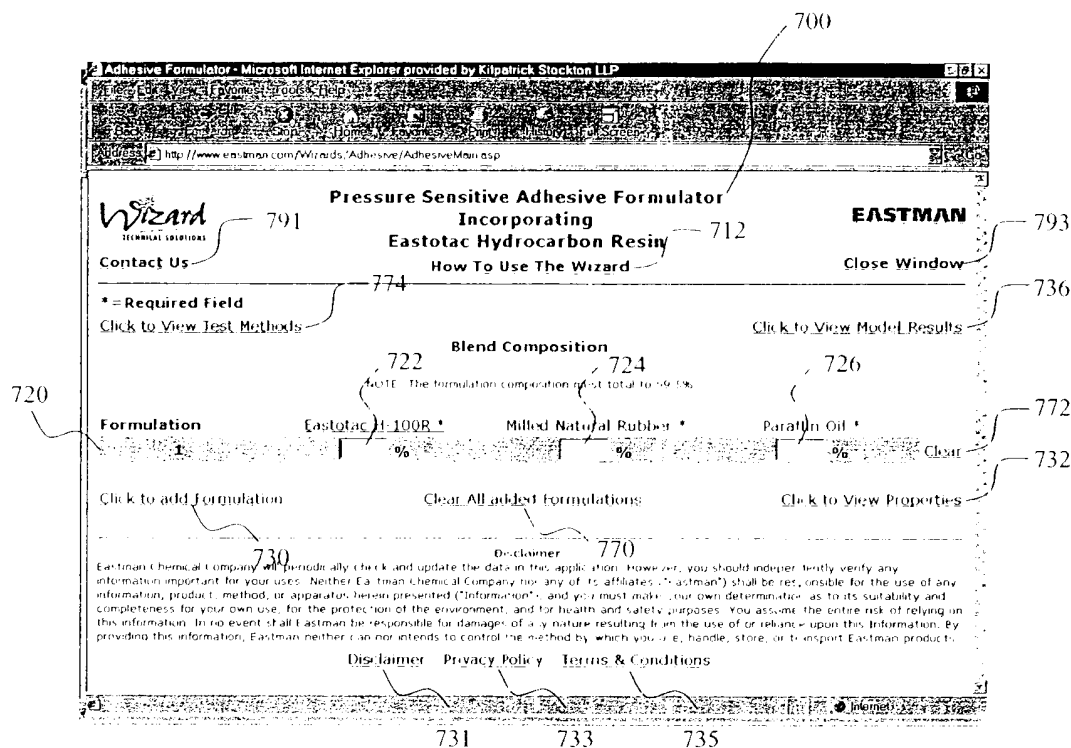


FIGURE 7C

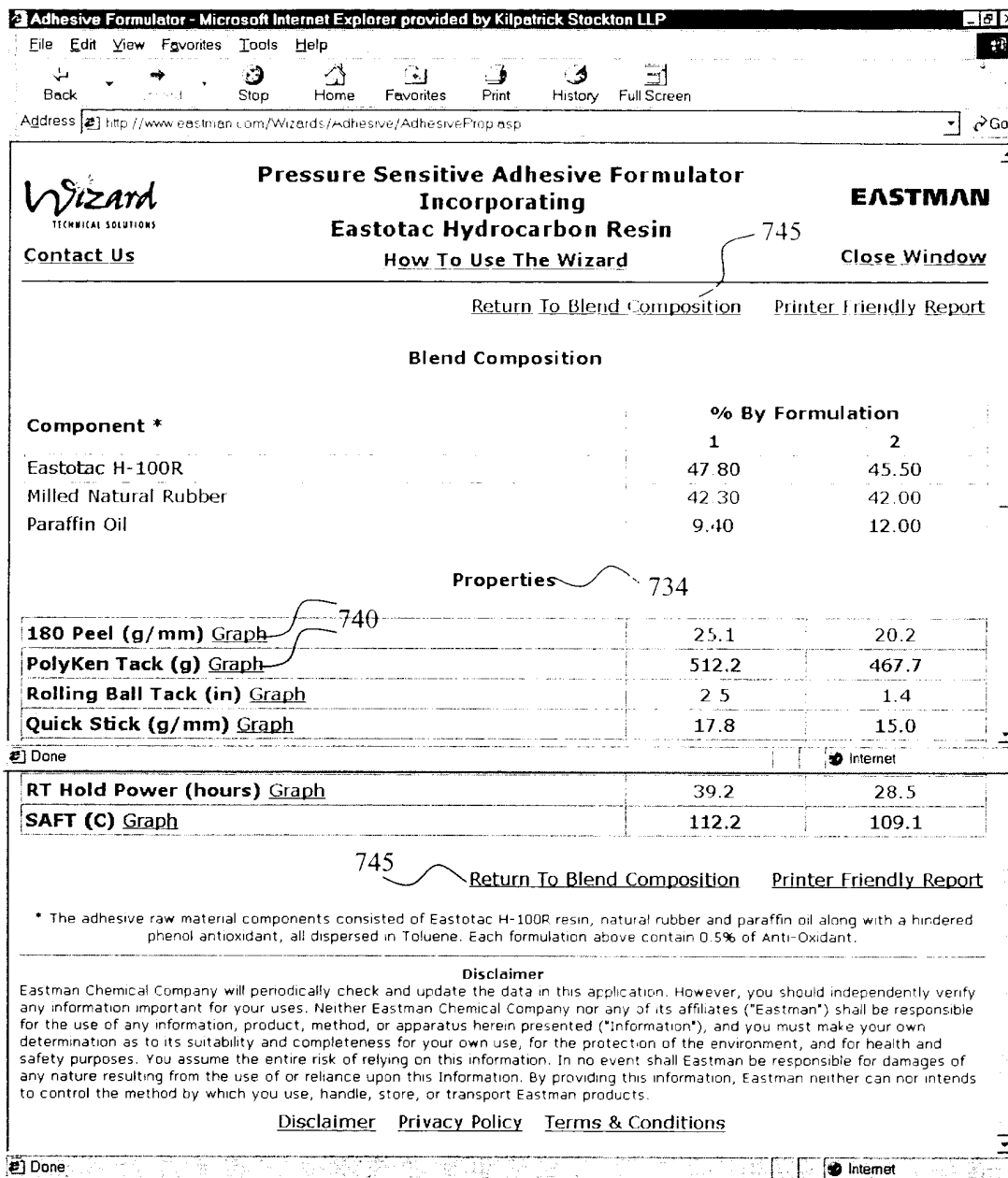


FIGURE 7D

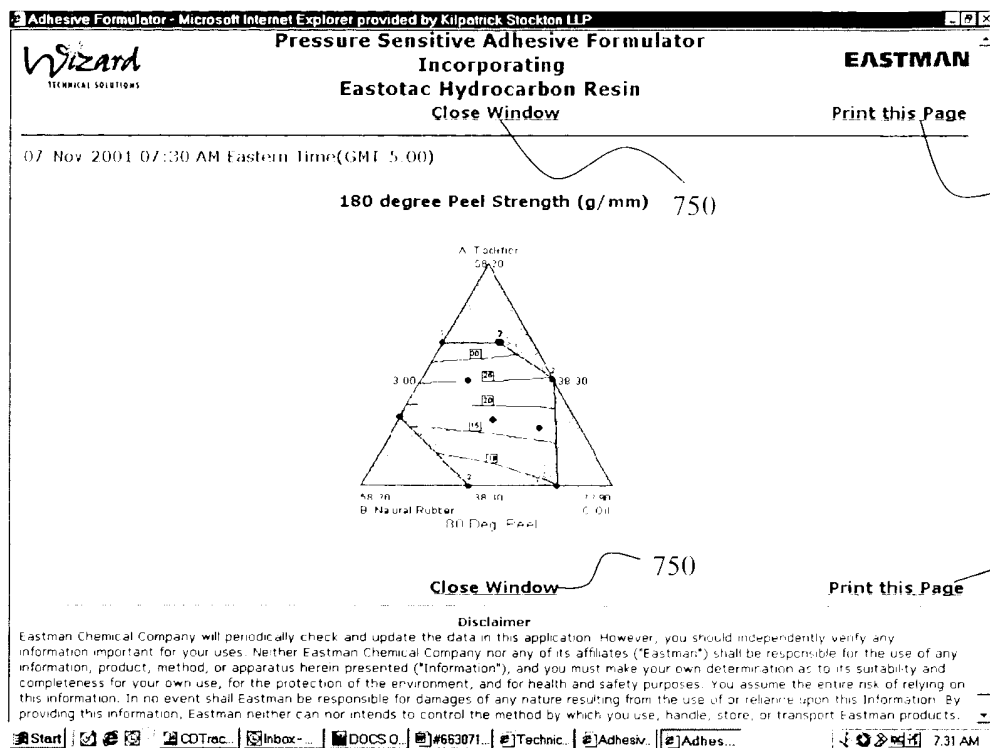


FIGURE 7E

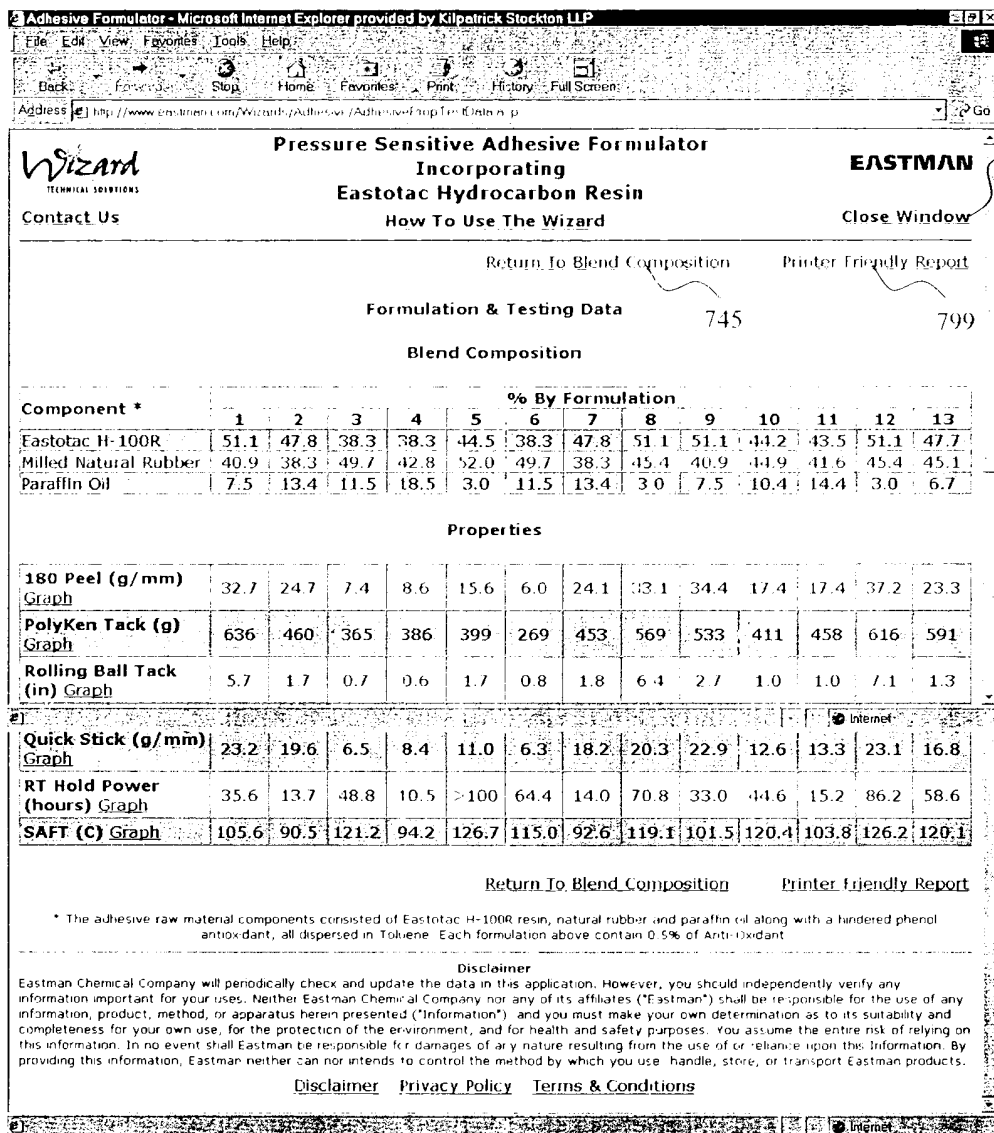


FIGURE 7F

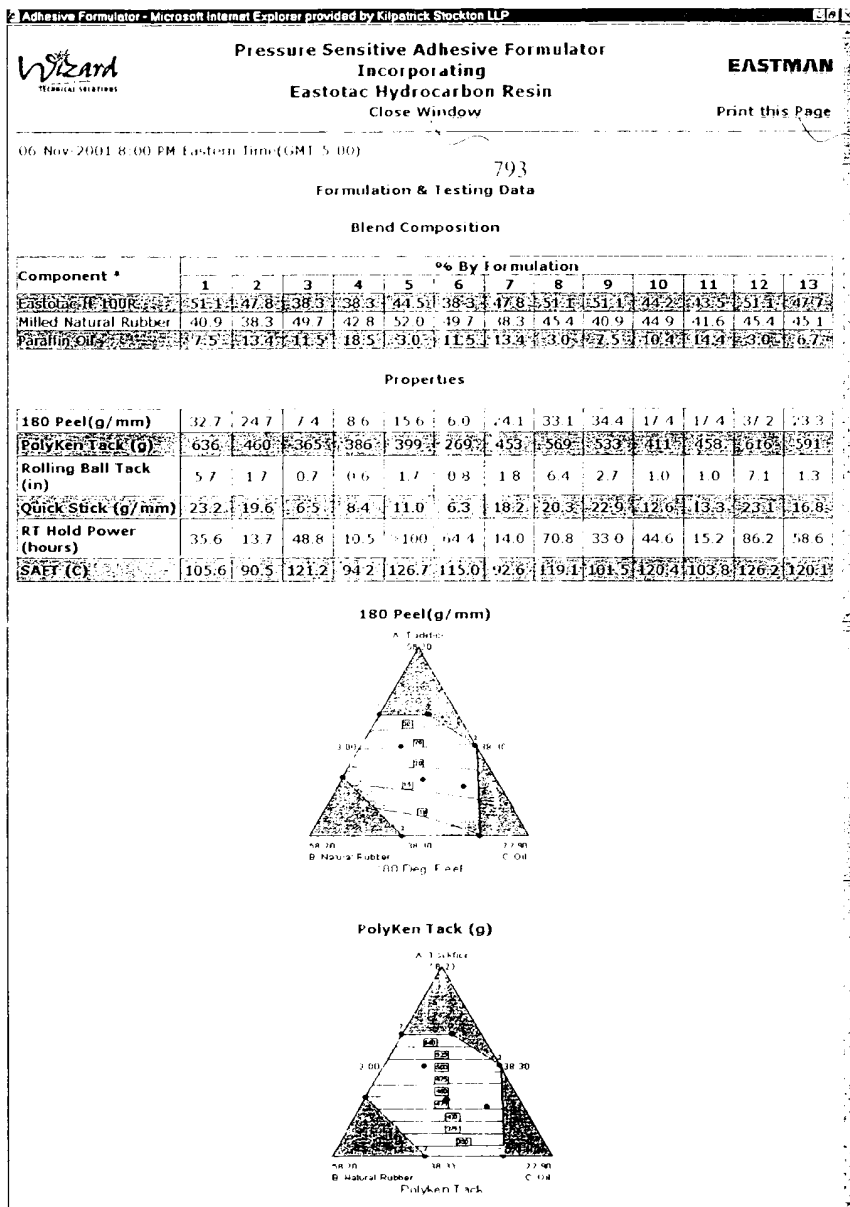


FIGURE 7G

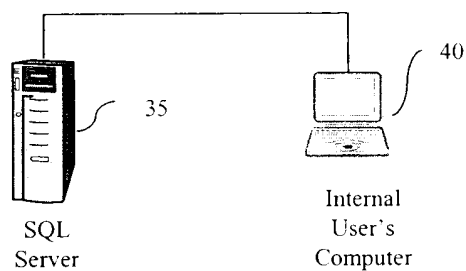


FIG. 8

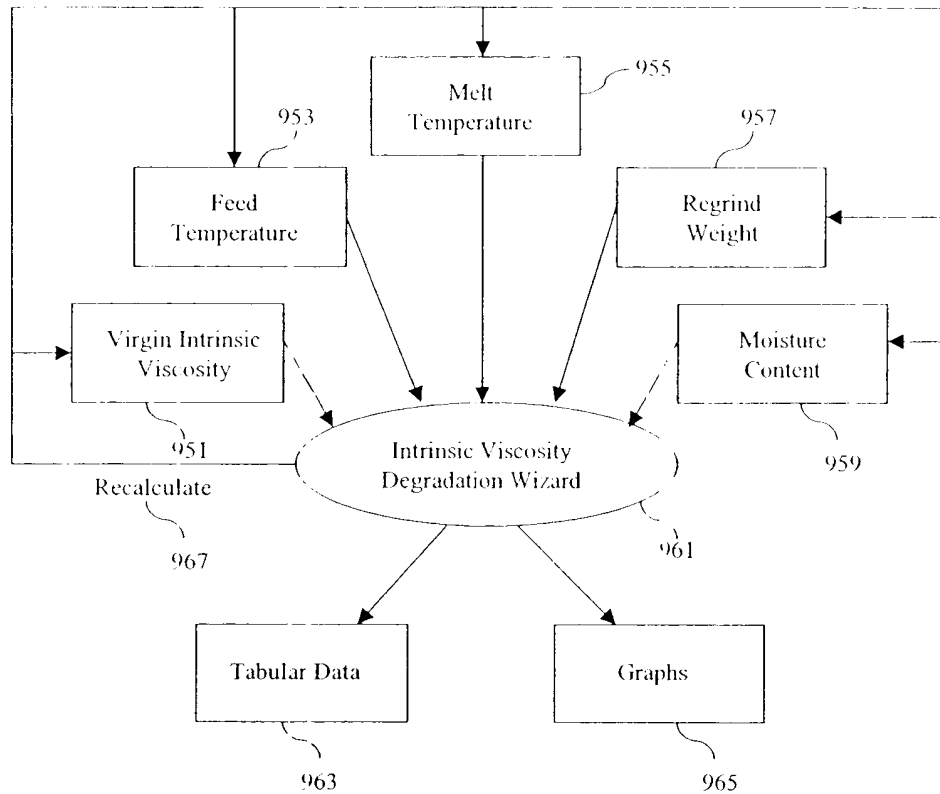


FIGURE 9A

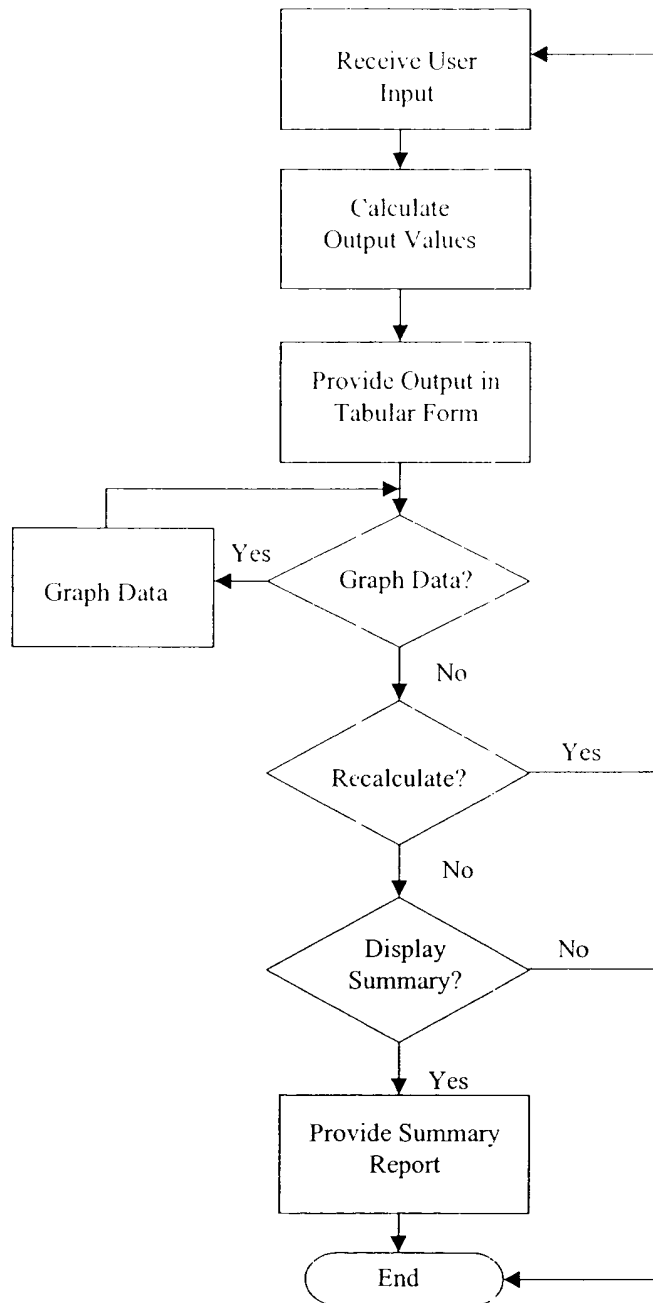


FIGURE 9B

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

http://www.eastman.com/Wizard/IVDegradation/IVDegradation.nsp

Wizard Intrinsic Viscosity Degradation Model For Eastapak PET **EASTMAN**

Contact Us 901 How To Use The Wizard 912 Close Window 993

* = Required Field

Input Parameters:

Virgin Resin Intrinsic Viscosity: 1.00 dl/g 900

Pellet Feed Temperature: 30 °C

Melt Temperature: 275 °C

Virgin Resin Moisture Content: 0.005 wt%

Regrind Ratio: 5 wt%

Regrind Moisture: 0.007 wt%

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Calculate

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph.

907A

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Printer Friendly Report

FIGURE 9C

Intrinsic Viscosity Degradation Model For Eastapak PET - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

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Address <http://www.eastman.com/Wizards/IVDegradation/IVDegradInputs.asp> Go

Wizard **Intrinsic Viscosity Degradation Model For Eastapak PET** **EASTMAN**

Contact Us [How To Use The Wizard](#) [Close Window](#)

*=Required Field [Printer Friendly Report](#)

Input Parameters:

Virgin Resin Intrinsic Viscosity: * dl/g

Pellet Feed Temperature: * °C

Melt Temperature: * °C

Virgin Resin Moisture Content: * wt%

Regrind Ratio: * wt%

Regrind Moisture: * wt%

[Recalculate](#)

Predicted Effect on Intrinsic Viscosity

Click the appropriate link to view the graph

920 [HELP?](#)

921 [a. Regrind Effect](#)

922 [b. Virgin Resin Intrinsic Viscosity Effect](#)

923 [c. Melt Temperature Effect](#)

924 [d. Feed Temperature Effect](#)

925 [e. Passes Graph](#)

926 [f. Regrind Moisture Effect](#)

926 [g. Virgin Resin Moisture Effect](#)

Intrinsic Viscosity:

Intrinsic Viscosity before Pass 1: 0.930 dl/g

[Click here for the Conversion Table](#)

Passes Detail:

Passes	Intrinsic Viscosity
Pass 1	0.926
Pass 2	0.926
Pass 3	0.926
Pass 4	0.926
Pass 5	0.926
Pass 6	0.926
Pass 7	0.926
Pass 8	0.926

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FIGURE 9D

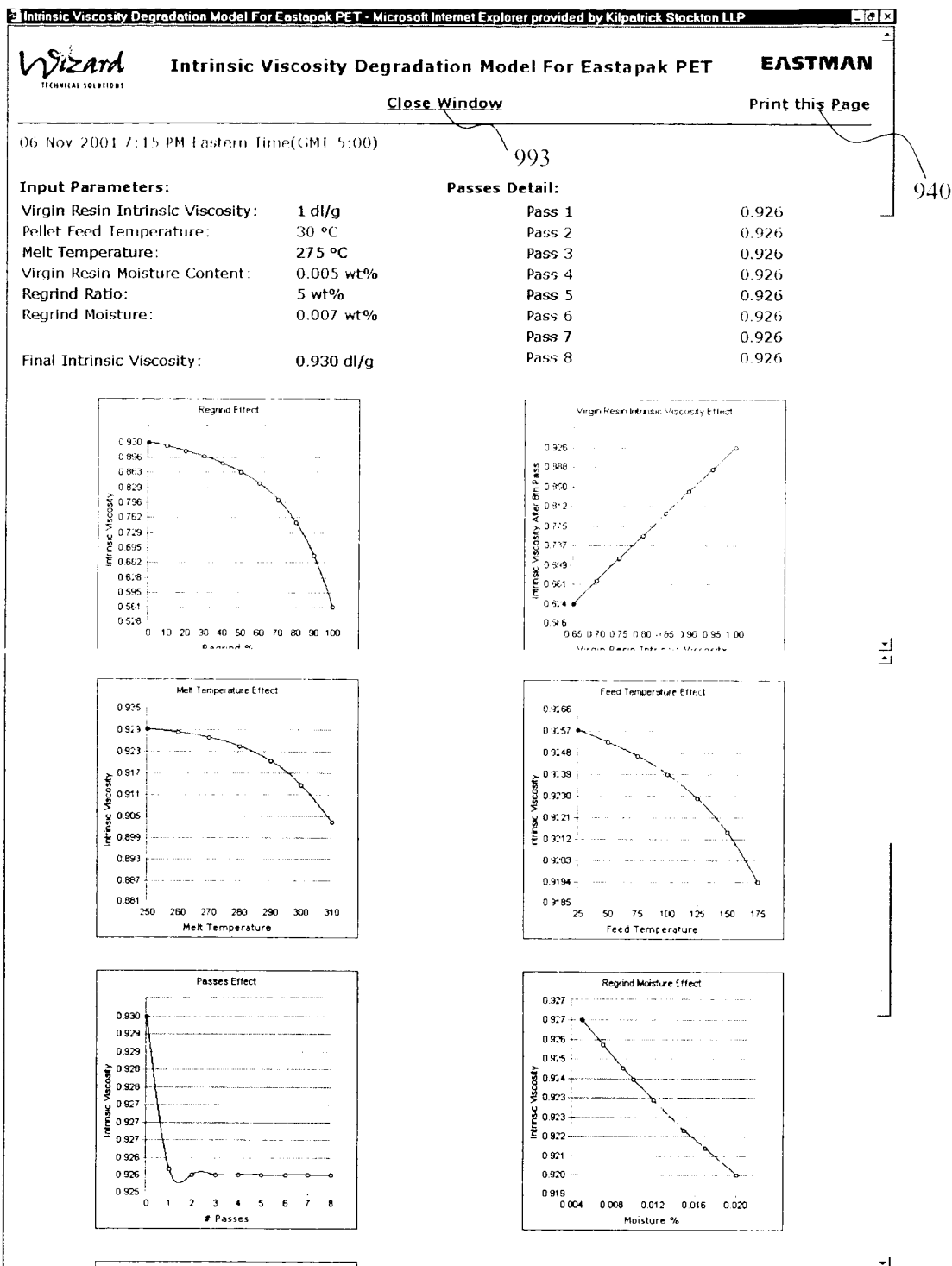


FIGURE 9E

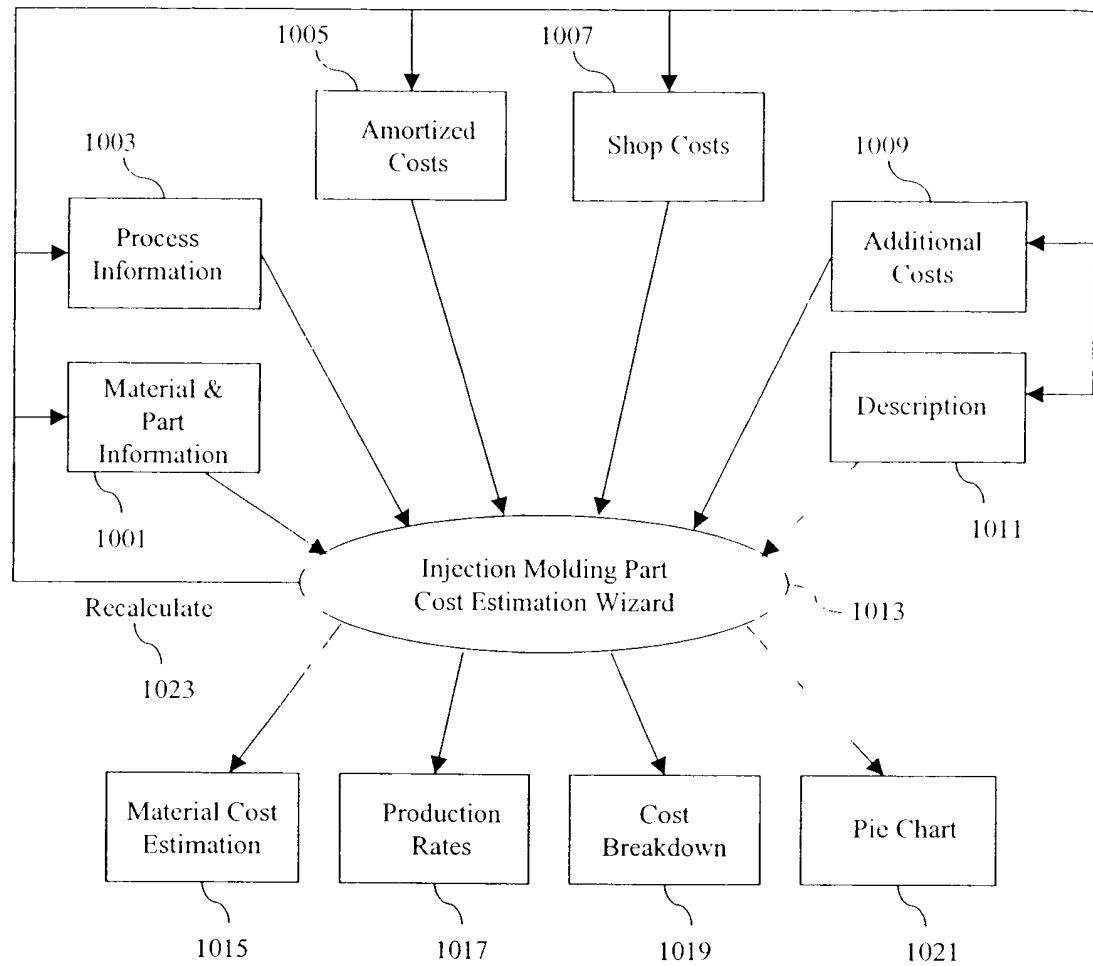


FIGURE 10A

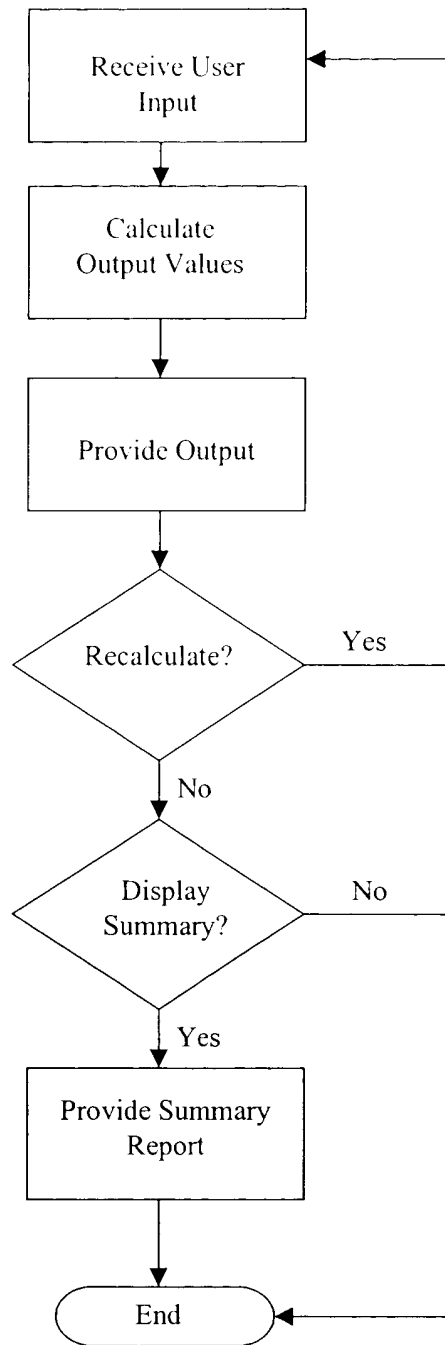


FIGURE 10B

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

http://www.eastman.com/Wizards/InjectionMoldingWizard.asp

Wizard
 TECHNICAL SOLUTIONS

Injection Molding Part Cost Estimation 1000 **EASTMAN**

Contact Us How To Use The Wizard 1012 Close Window

* = Required Field Printer Friendly Report 1099

Input Values 1090 **Predicted Values** 1060

Descriptions: 1090 **Material Cost Estimations:** 1060

Company: 1040 Material Cost per Part: 1090
 Name of part: 1042 Virgin Material Use Rate:
 Description: 1044 Material Cost per
 Material: 1046 Acceptable Part:
 Preferred Currency: 1048

Material and Part Information: 1002 **Production Rates:** 1090

Part: 1004
 Mass: * 100 grams 1004
 Runner: 1004
 Mass: * 0 grams 1004
 Material Cost: * 1 kilogram 1004

Process Information: 1006 **Cost Breakdown:** 1064

Number Of Cavities: * 1 1008
 Estimated Cycle Time: * 30 seconds 1010
 Reject Rate: * 10% 1014
 % of Rejects Reground: * 50% 1016

Amortized Costs: 1006 **Cost Breakdown:** 1064

Equipment Costs: * 0 1018
 Equipment Amortization Time: * 10 Years 1020
 Mold Cost: * 0 1022
 Mold Amortization Time: * 2 Years 1024

Shop Costs: 1090

Plastics Technology

(For U.S. only) [click here](#) to get the rate information

FIGURE 10C

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Address <http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp> Go

(For U.S. only) [click here](#) to get the rate information

Operating hours per week: * 40 hours 1026

Project Down Time: * 1028

Machine Cost: * 1030

Additional Cost [HELP?](#)

Secondary Operations: * 1032

Overhead Expenses: * 1034

Miscellaneous Expenses: * 1036

[Calculate](#) 1050

[Printer Friendly Report](#) 1099

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Internet

1031 1033 1035

FIGURE 10D

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Back Forward Stop Home Favorites Print History Full Screen

Address <http://www.eastman.com/Wizards/PartCostEstimator/PartCostEstimator.asp?FirstLoad=Yes&Curr=US&CalcType=ReCalc> Go

Wizard **Injection Molding Part Cost Estimation** **EASTMAN**

[Contact Us](#) [How To Use The Wizard](#) [Close Window](#)

* = Required Field [Printer Friendly Report](#)

Input Values		Predicted Values	
Descriptions	HELP?	Material Cost Estimations:	HELP?
Company:	ABC	Material Cost per	50.00 US per
Name of part:	Name	Part:	1000 parts
Description:	Description	Virgin Material Use	5.13 kilograms
Material:	Plastic	Rate:	per hour
Preferred Currency:	US	Material Cost per	52.78 US per
		Acceptable Part:	1000 parts
Material and Part Information	HELP?	Production Rates:	HELP?
Part Mass: *	50 grams (mass for 1 part only)	Gross Production Rate:	108.00 parts per hour
Runner Mass: *	0 grams (enter 0 if hot runner system or if reground)	Rejected Parts:	10.80 parts per hour
Material Cost: *	1 US/kilogram	Acceptable Parts Prod. Rate:	97.20 parts per hour
	Recalculate	Annual Production Rate:	202,731.43 parts per year
Process Information	HELP?	Cost Breakdown:	HELP?
Number Of Cavities: *	1	Material:	52.78 US per 1000 parts
Estimated Cycle Time: *	30 Seconds	Operating (Press) Costs:	514.40 US per 1000 parts
Reject Rate: *	10%	Amortized Costs:	73.99 US per 1000 parts
% of Rejects Reground: *	50%	Additional Costs:	110.00 US per 1000 parts
	Recalculate	Total Part Cost:	751.17 US per 1000 parts
Amortized Costs	HELP?		
Equipment Costs: *	100000 US		
Equipment Amortization Time: *	10 Years		
Mold Cost: *	10000 US		
Mold Amortization Time: *	2 Years		

Internet

FIGURE 10E

Injection Molding Part Cost Estimation - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

Wizard TECHNICAL SOLUTIONS **Injection Molding Part Cost Estimation** **EASTMAN**

Close Window 1093 Print this Page 1040

06 Nov 2001 7:28 PM Eastern Time(GMT 5:00)

Input Values

Descriptions

Company: ABC
 Name of part: Description
 Description: Description
 Material: Plastic
 Preferred Currency: US

Material and Part Information

Part Mass: 50 grams
 Runner Mass: 0 grams
 Material Cost: 1 US per kilogram

Process Information

Number Of Cavities: 1
 Estimated Cycle Time: 30 Seconds
 Reject Rate: 10 %
 % of Rejects Reground: 50 %

Amortized Costs

Equipment Costs: 100000 US
 Equipment Amortization Time: 10 Years
 Mold Cost: 10000 US
 Mold Amortization Time: 2 Years

Shop Costs

Operating hours per week: 40
 Project Down Time: 10 %
 Machine Cost: 50 US per hour

Additional Cost

Secondary Operations: 2 US per part
 Overhead Expenses: 4 US per part
 Miscellaneous Expenses: 5 US per part

Predicted Values

Material Cost Estimations:

Material Cost per Part: 50.00 US per 1000 parts
 Virgin Material Use Rate: 5.17 kilograms per hour
 Material Cost per Acceptable Part: 52.78 US per 1000 parts

Production Rates:

Gross Production Rate: 108.00 parts per hour
 Rejected Parts: 10.80 parts per hour
 Acceptable Parts Prod. Rate: 97.20 parts per hour
 Annual Production Rate: 202,731.43 per 1000 parts

Cost Breakdown:

Material: 52.78 US per 1000 parts
 Operating (Press) Costs: 514.40 US per 1000 parts
 Amortized Costs: 73.99 US per 1000 parts
 Additional Costs: 110.00 US per 1000 parts
 Total Part Cost: 751.17 US per 1000 parts

Total Cost Predicted

Material Cost - 7.0264%
 Amortized Cost - 9.8500%
 Operating Cost - 68.4788%
 Additional Cost - 14.6438%

1093 Close Window 1040 Print this Page 1040

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FIGURE 10F

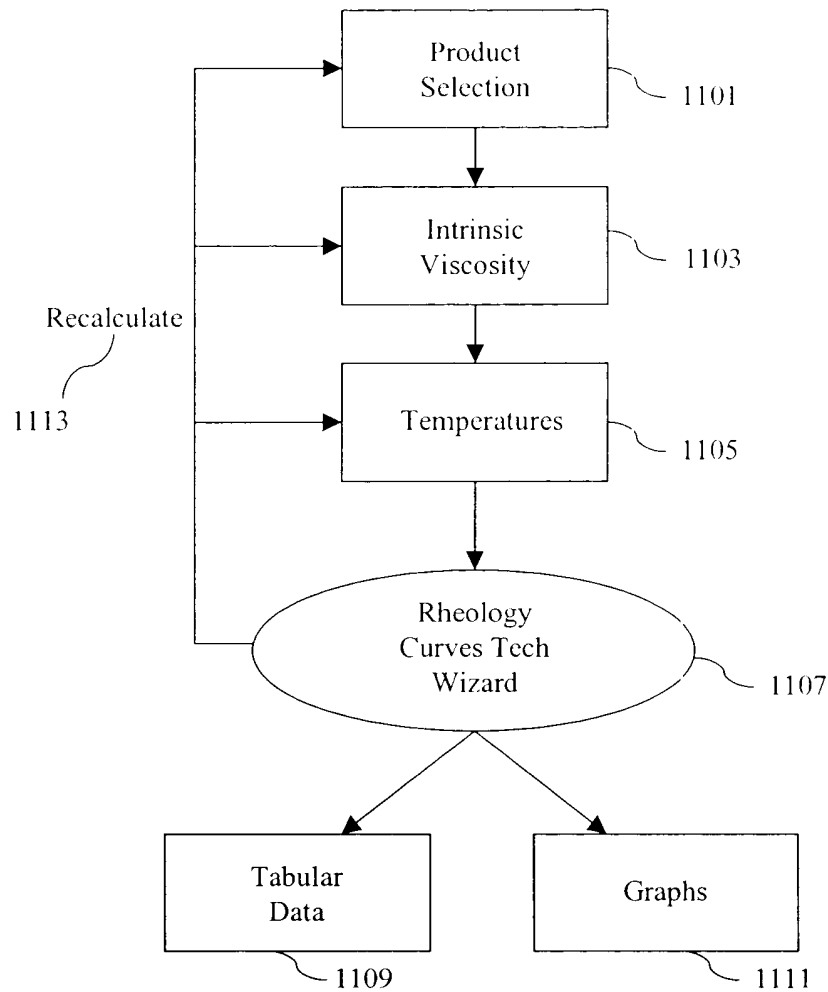


FIGURE 11A

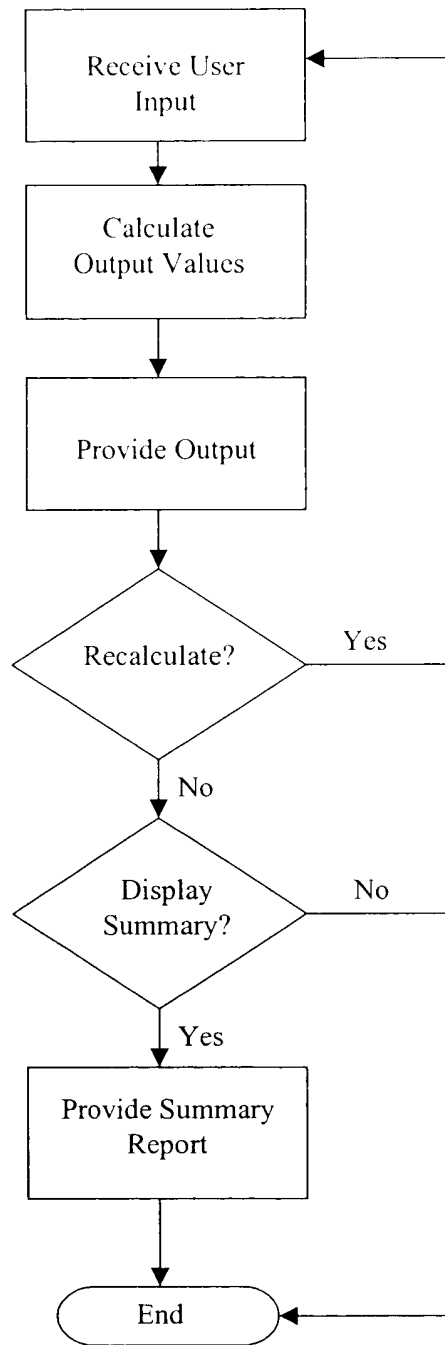


FIGURE 11B

Rheology Curves and Data - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Back Forward Stop Home Favorites Print History Full Screen

Address http://www.eastman.com/Wizards/RheologyCurves/RheologyMain.asp Go

Wizard
TECHNICAL SOLUTIONS

Rheology Curves and Data 1100

EASTMAN

Contact Us 1191 How To Use The Wizard 1112 Close Window 1193

*=Required Field

Product Group: * 1102

Product: * 1104

[Click here to Continue](#) 1106

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1131 1133 1135

FIGURE 11C

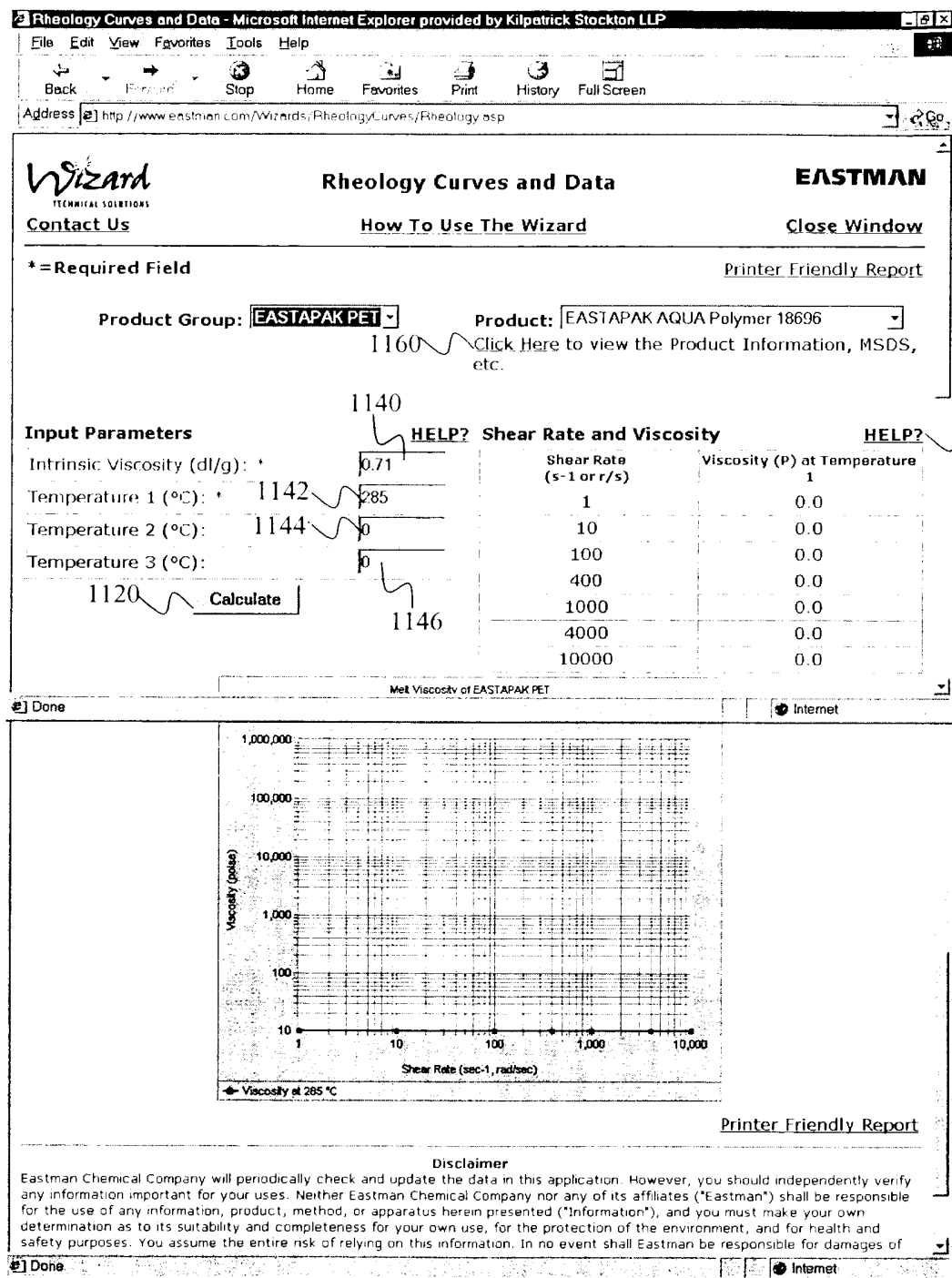


FIGURE 11D

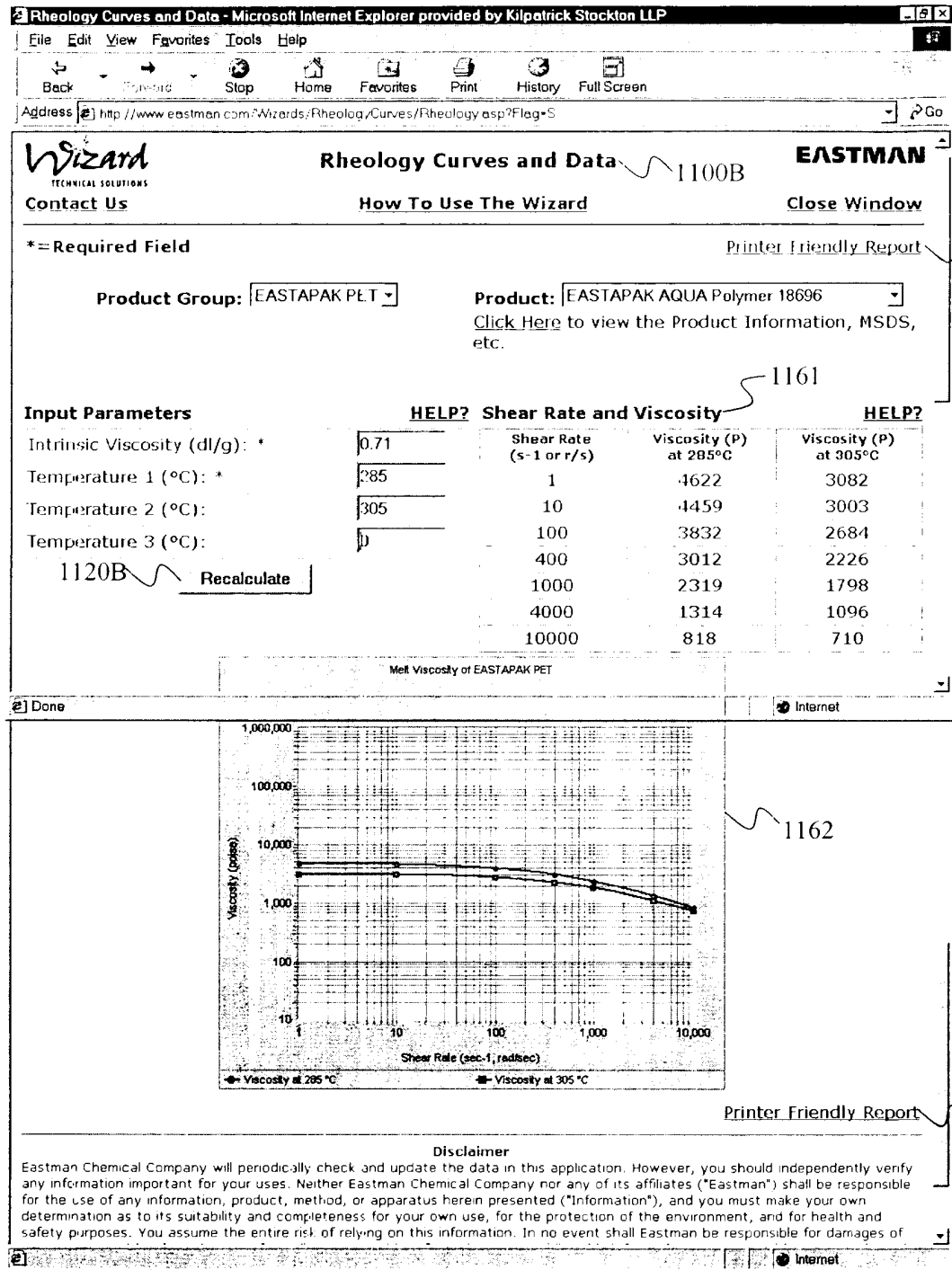


FIGURE 11E

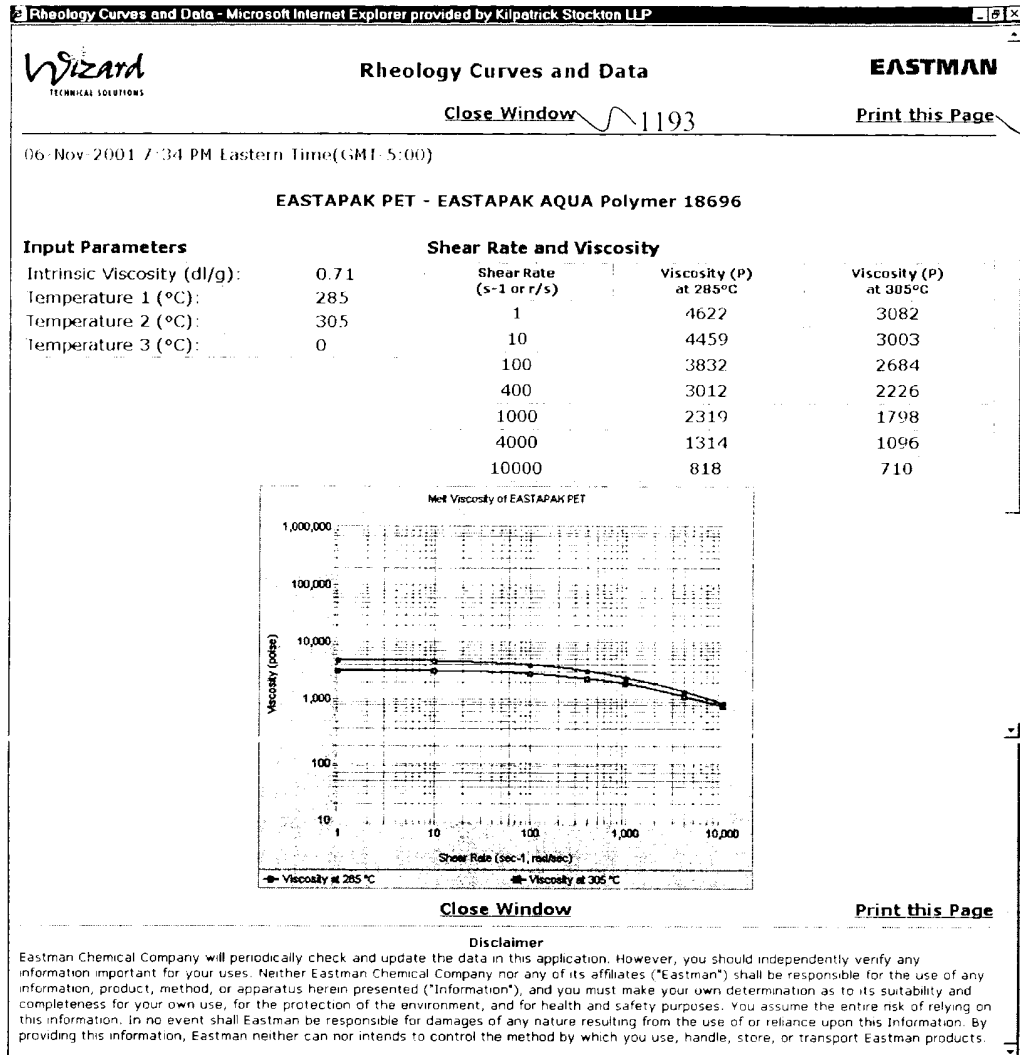


FIGURE 11F

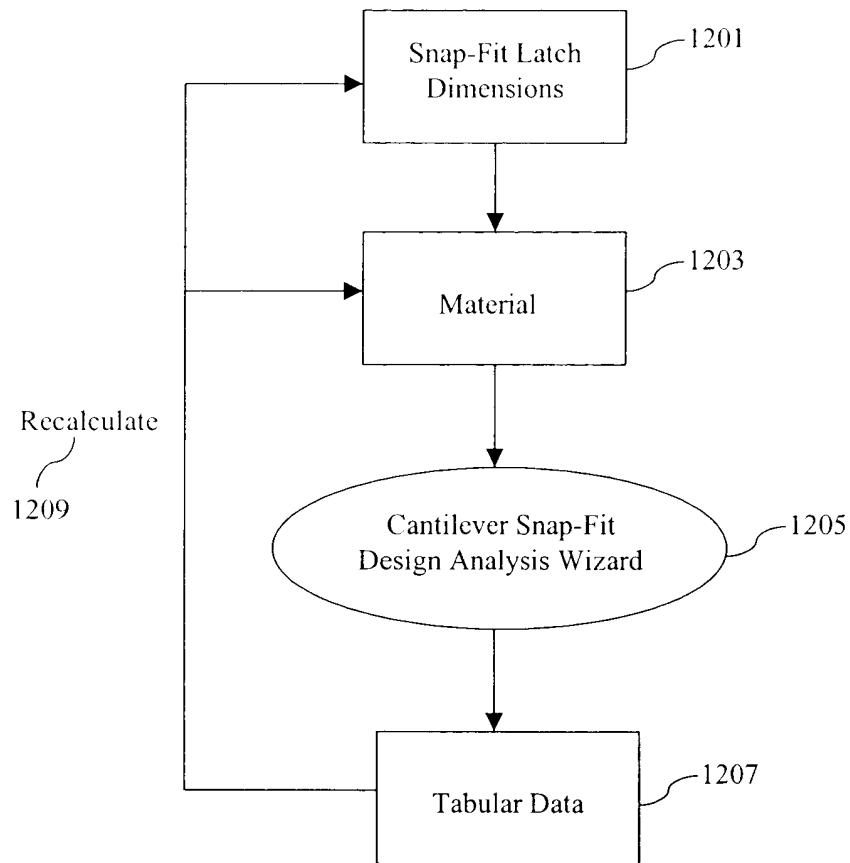


FIGURE 12A

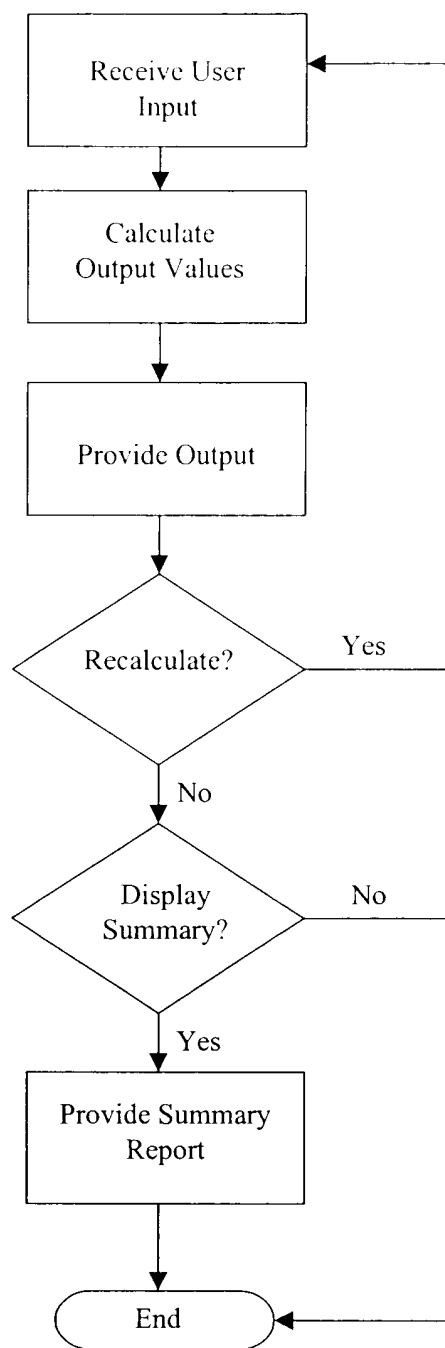


FIGURE 12B



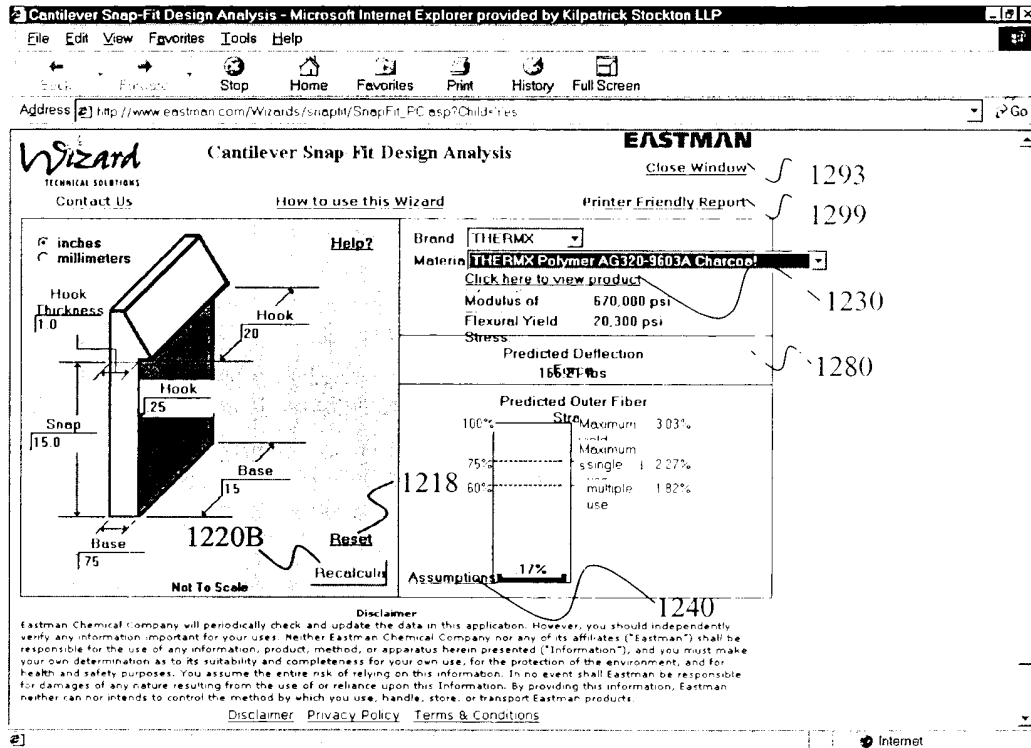


FIGURE 12D

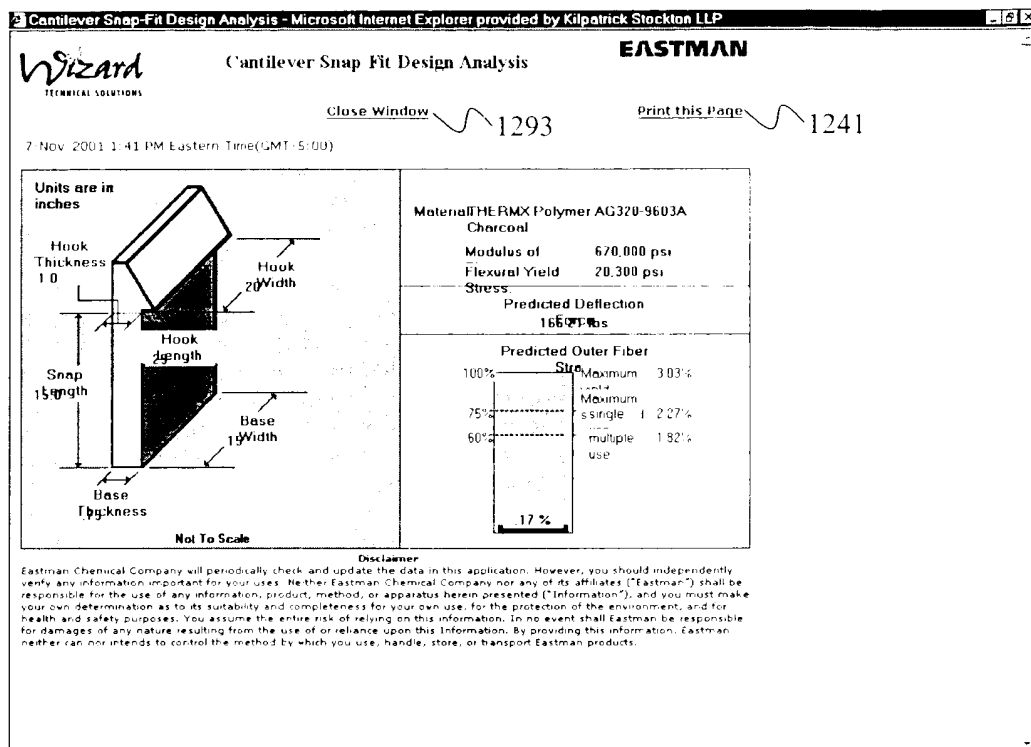


FIGURE 12E

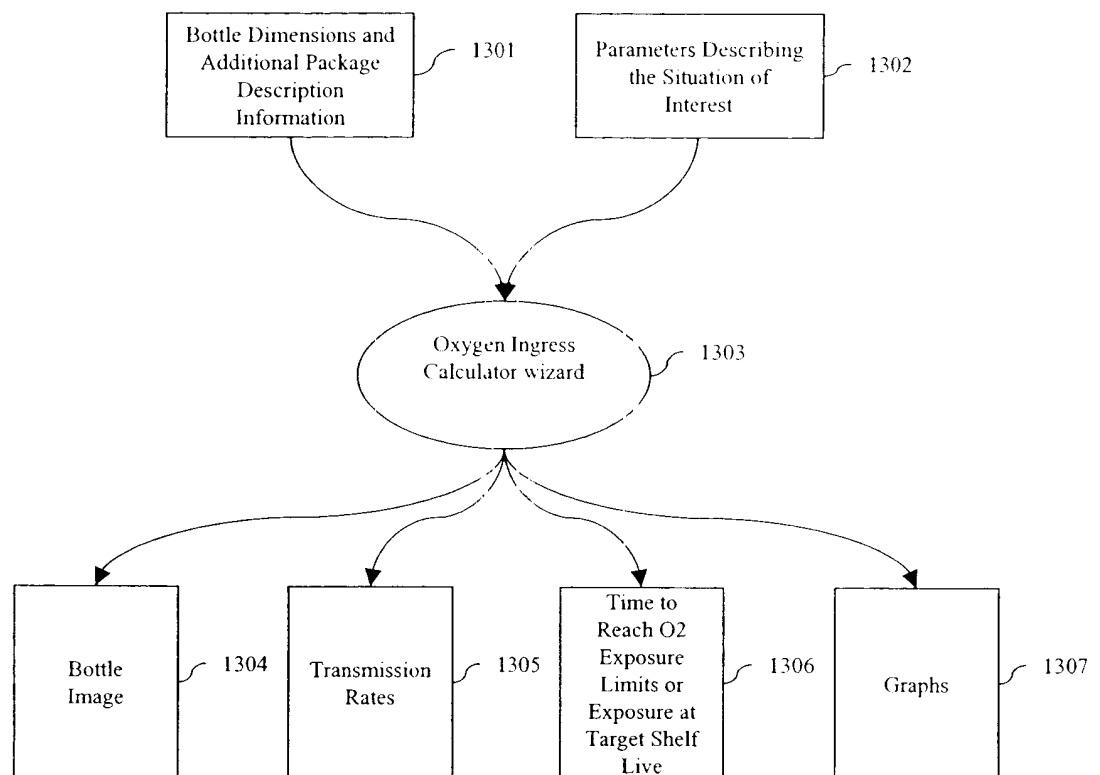


FIG. 13A

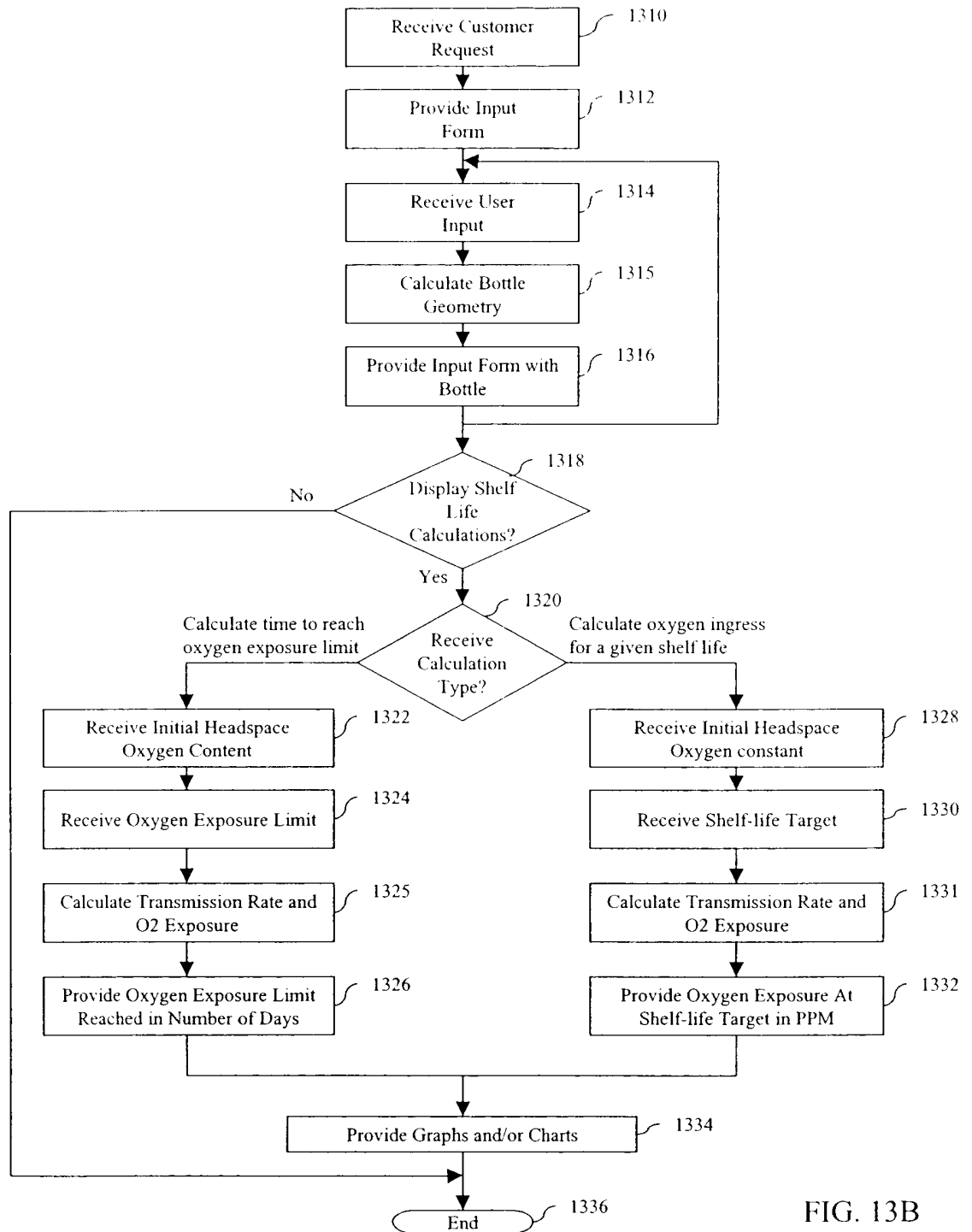


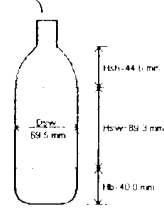
FIG. 13B

Wizard **Oxygen Ingress Calculator for PET Monolayer Containers** **EASTMAN**
 Technical Wizards
 Contact Us How To Use The Wizard Close Window

* = Required Field

1350 **Container Specifications** **HELP?**

1352 Container Volume: * 500 ml
 Container Type: * Select Container Type
 Headspace Volume: ml
 Container Weight: * 55.9 grams
 Diameter: * 69.5 mm
 Sidewall Ht/Shoulder Ht: *
 Finish Diameter: * Select Finish Diameter
 Closure Type: * Select Closure Type

1354 

1356 **Draw Bottle**

Click here for Conversion Table

1357 **Assumptions** Click here for Shelf Life Calculations

Internet Guide

FIG. 13C

1358 **Select Option** **HELP?**

Calculate Time To Reach Oxygen Exposure Limit ☒
 Calculate Oxygen Ingress For A Given Shelf Life ☐

1360 **Input Parameters** **HELP?**

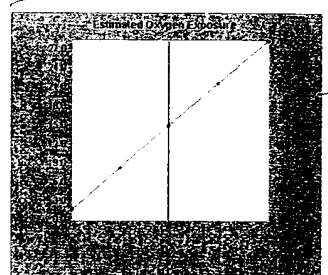
Initial Head Space Oxygen Content: * 2 %
 Oxygen Exposure Limit: * 15 ppm

1362 **Output Parameter** **HELP?**

Oxygen Exposure Limit Reached: 124.2 days

1366 **Calculate**

1364

1368 

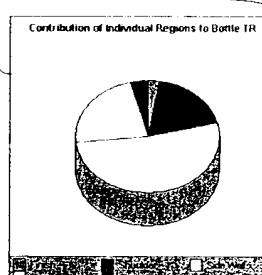
1370 

FIG. 13D

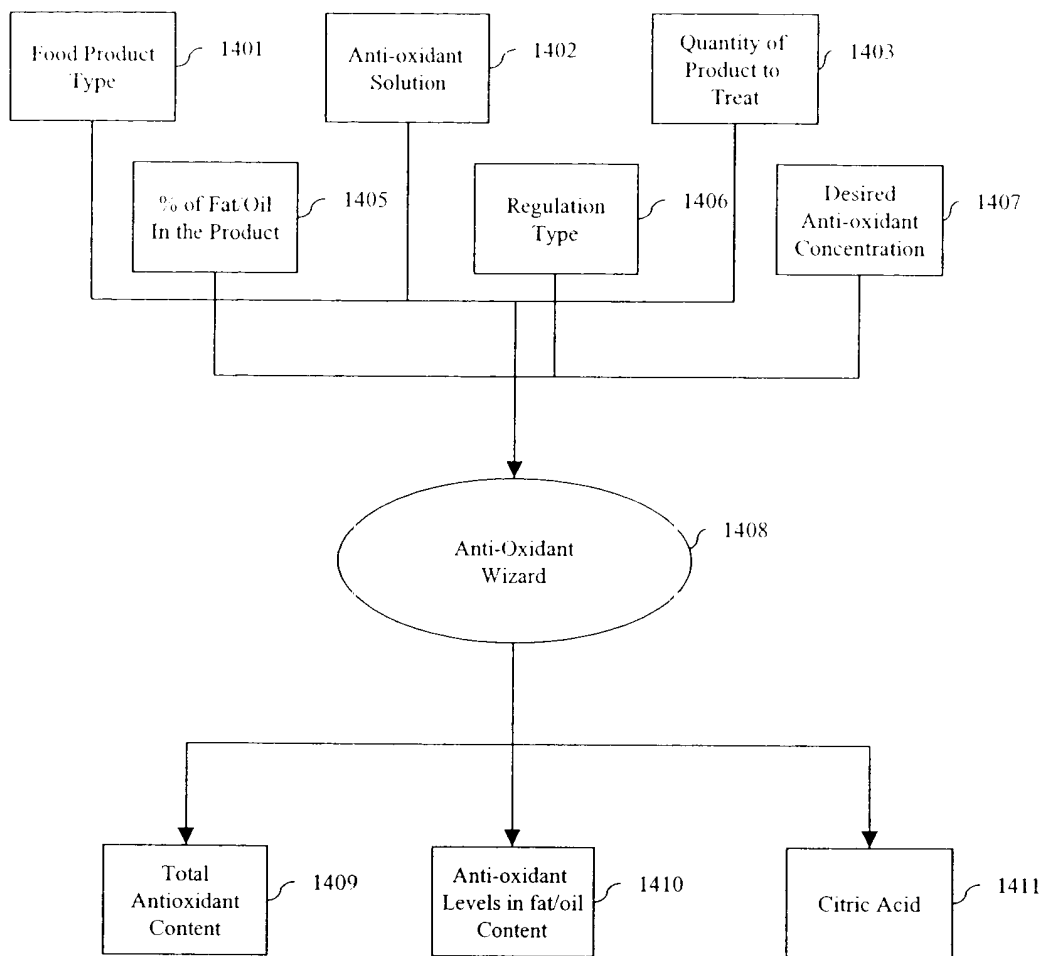


FIG. 14A

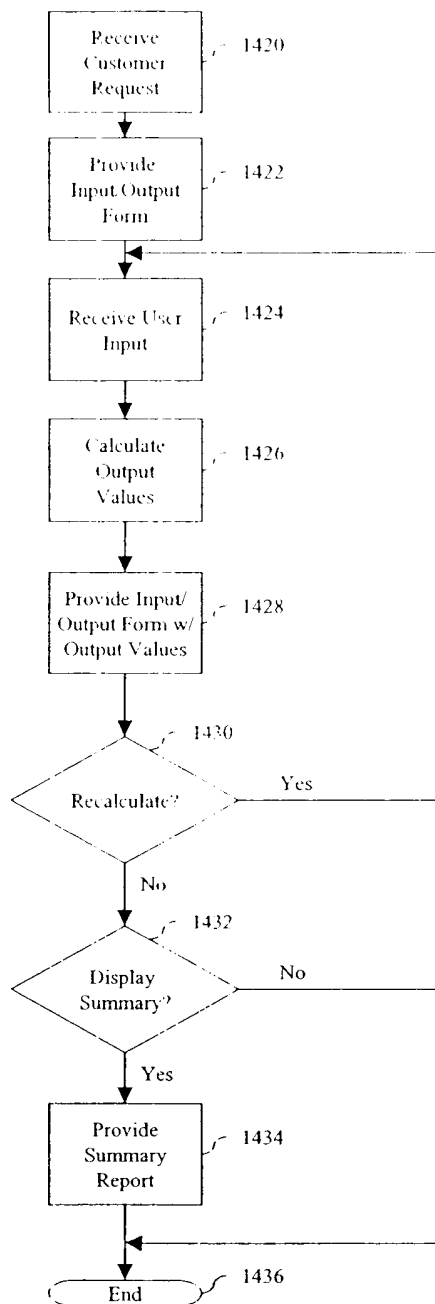


FIG. 14B

Antioxidant Calculator - Microsoft Internet Explorer

File Edit View Go Favorites Help

Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print

Address http://eastman/Wizards/Prototype/Antioxidant/AntiOxMan.asp

Search attempting to connect to Yahoo!

Wizard TECHNICAL SOLUTIONS **Antioxidant Calculator** **EASTMAN**

Contact Us [How To Use The Wizard](#) [Close Window](#)

* = Required Field [Click here to see a listing of Recommended Tenox Products for various Applications](#)

Input Parameters	HELP?	Antioxidant levels in fat/oil content
Food Product: *	Select One	BHA
Tenox Product to be used: *	Select One	BHT
Quantity of Food Product to treat: *	1000	TBHQ
Weight units: *	Select One	Propyl Gallate
Fat/oil percentage in food product: *	100 %	Total Antioxidant Level
Regulation to be used: *	FDA	Citric Acid
Total Antioxidant Concentration desired: *	ppm	Amount of Tenox 6 to apply:
Do you wish to convert the Antioxidant weight to volume: *	<input type="radio"/> Yes <input type="radio"/> No	

1450

1452

Done Local intranet zone

FIG. 14C

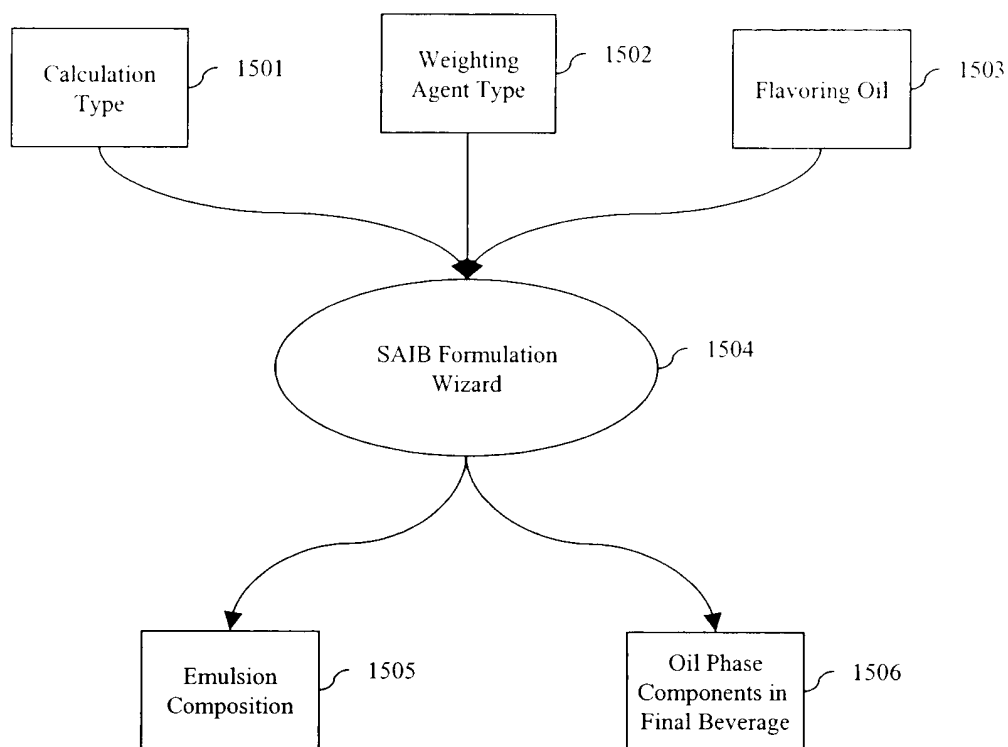


FIG. 15A

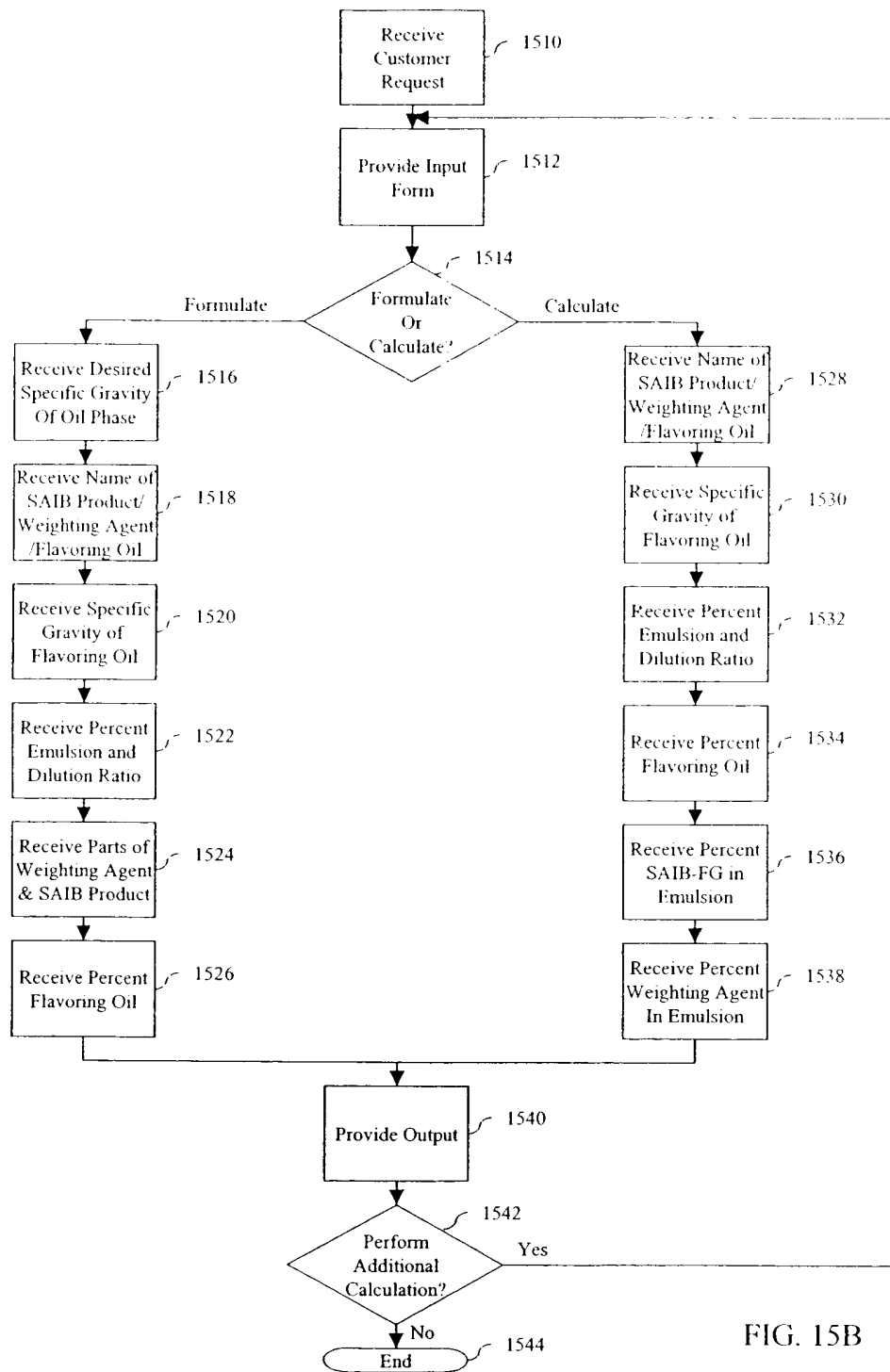


FIG. 15B

http://eastman/wizards/prototype/sabformulation/SAIBinfo.asp - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit Read.com

Address http://eastman/wizards/prototype/sabformulation/SAIBinfo.asp

Wizard
TECHNICAL SOLUTIONS

SAIB Beverage Formulation

EASTMAN

Contact Us How To Use The Wizard Close Window

* - Required field

To access the online Eastman SAIB FG brochure, click here: [Eastman SAIB FG brochure](#)
 For additional information about Eastman SAIB, click here: [SAIB: The Oldest New Ingredient](#)
 For information on regulations, click here: [Regulatory Status of SAIB](#)

Federal Register listing for SAIB: [SAIB Federal Register Excerpt](#)
 For additional information about specific SAIB products, click here: [Eastman SAIB Products Information](#)

General Information

Enter Project Description:

Enter Sample description:

Do you wish to: (Choice 1) formulate to a desired oil phase specific gravity or (Choice 2) calculate an oil phase specific gravity from existing ratios of oil and weighting agents?: **Choice 1**

Choice 1

Enter desired specific gravity of oil phase:

Select name of SAIB product:

Select name of additional weighting agent:

Enter name of flavoring oil to be used:

Enter specific gravity of flavoring oil:

HELP? Intermediate values

Dilution ratio	390:1
Specific Gravity of Weighting agent	0.00
Specific Gravity of SAIB Product	0.00
Specific gravity of SAIB in SAIB Product	0.00
Percent SAIB in SAIB Product	0 %
Specific Gravity of Weighting Agent(s)	0.00
Ratio of weighting agents to oil	0:1

Done

FIG. 15C

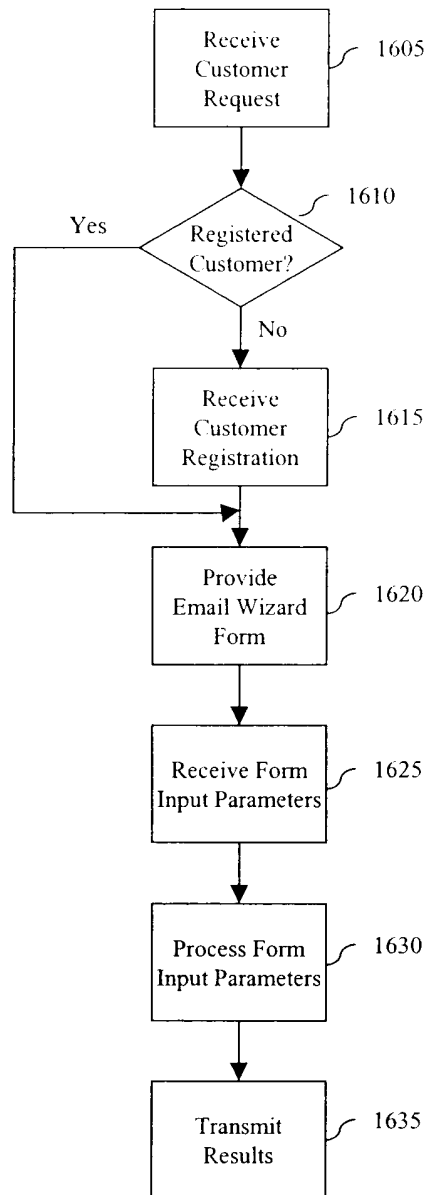


FIG. 16

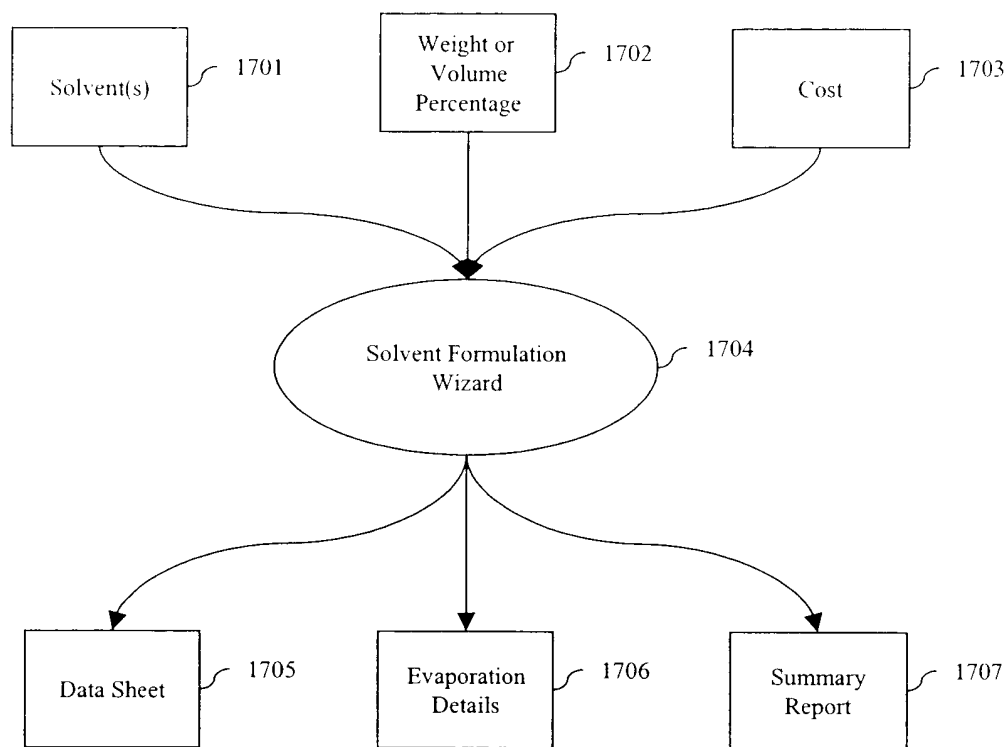


FIG. 17A

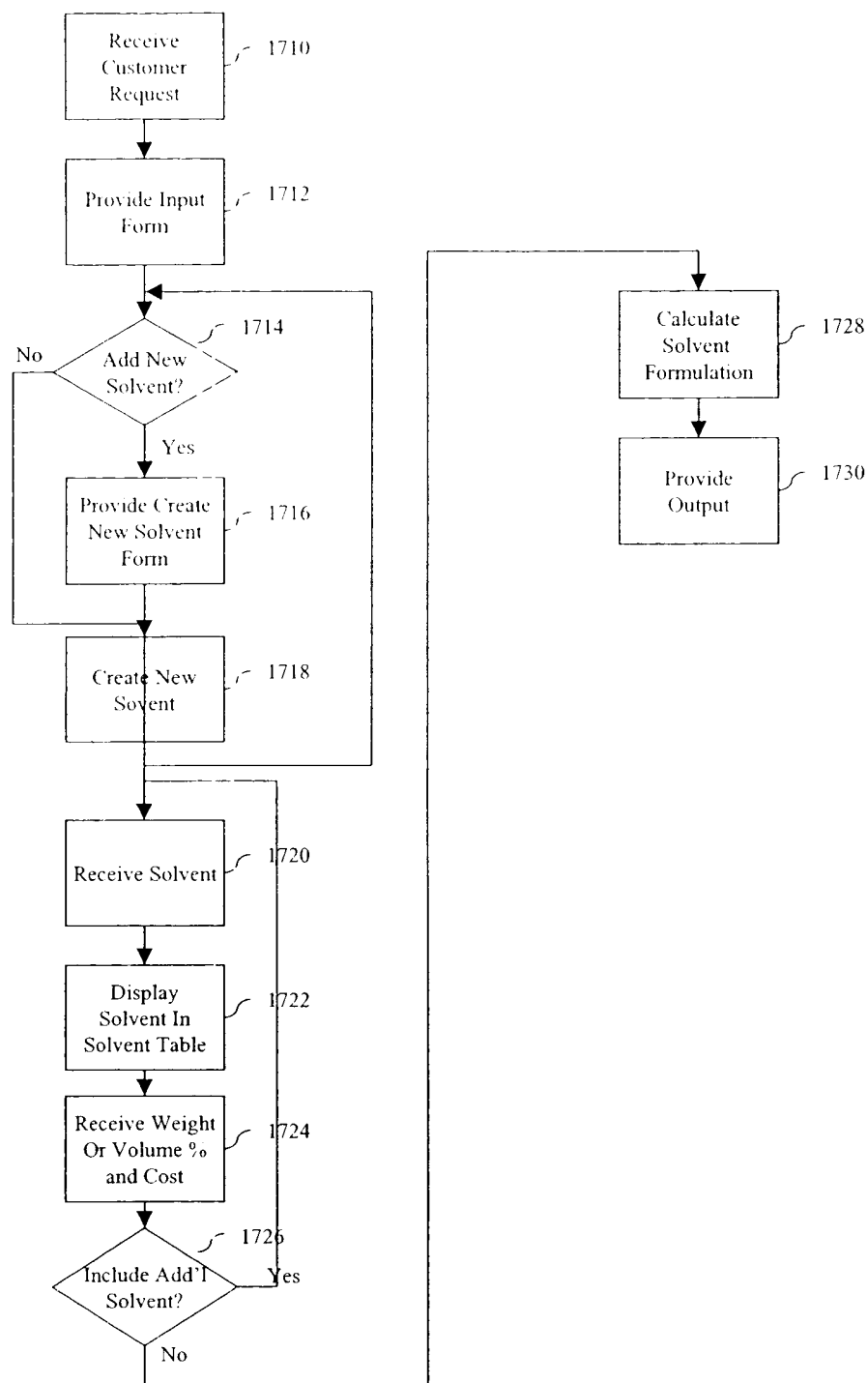


FIG. 17B

Solvent Reformulation - Microsoft Internet Explorer

Wizard
 TO SOLVENT REFORMULATION

Solvent Reformulation

How To Use The Wizard

Close Window

Solvent Selection

* Required Field

1750

Solvent Name

Weight %

Volume %

Cost per pound

HLP

1755

1756

1757

1758

Click Here To Add Solvent

FIG. 17C

Solvent Reformulation - Microsoft Internet Explorer

Wizard
 TO SOLVENT REFORMULATION

Solvent Reformulation

How To Use The Wizard

Close Window

Add New Solvent

* Required Field

1750

Solvent Name

Weight %

Volume %

Cost per pound

HLP

1755

1756

1757

1758

Click Here To Add Solvent

FIG. 17D

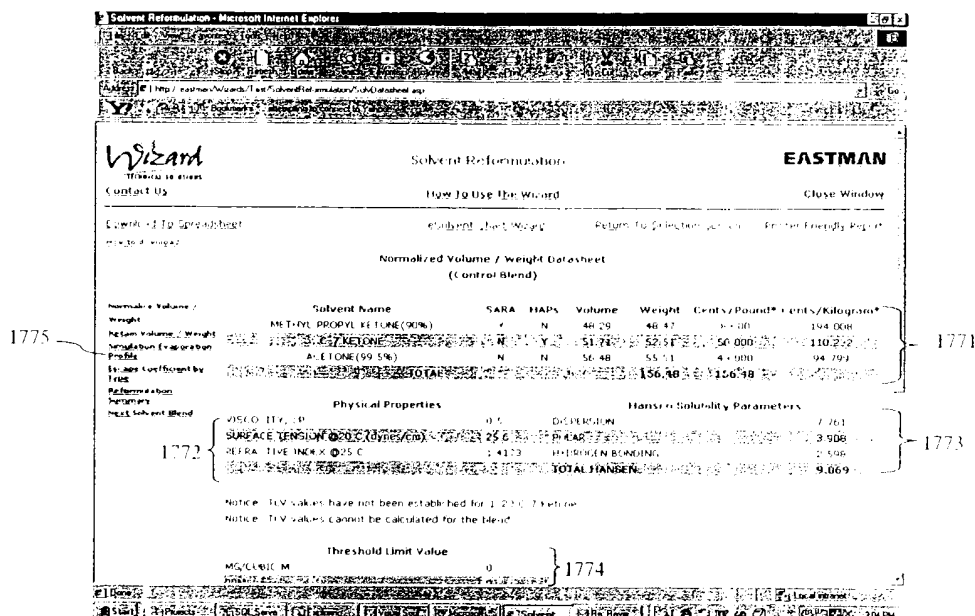


FIG. 17E

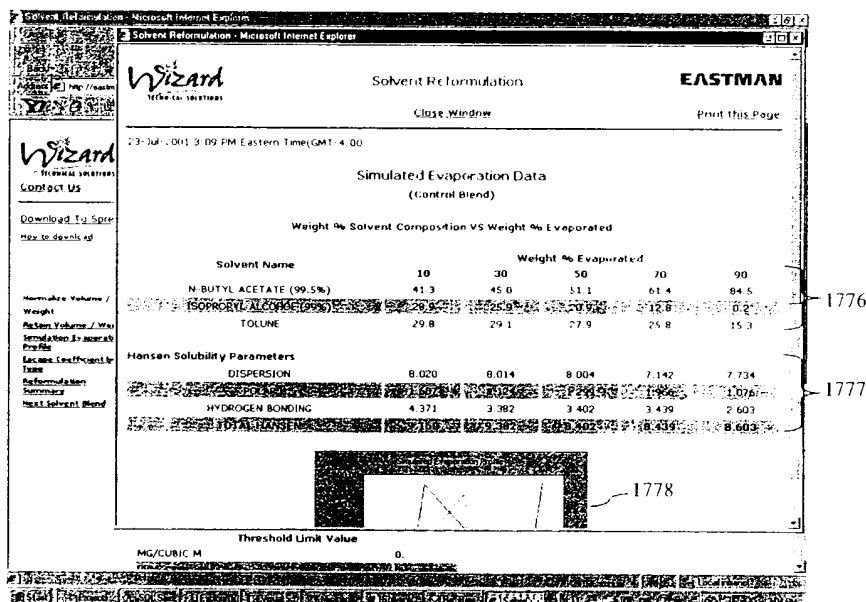


FIG. 17F

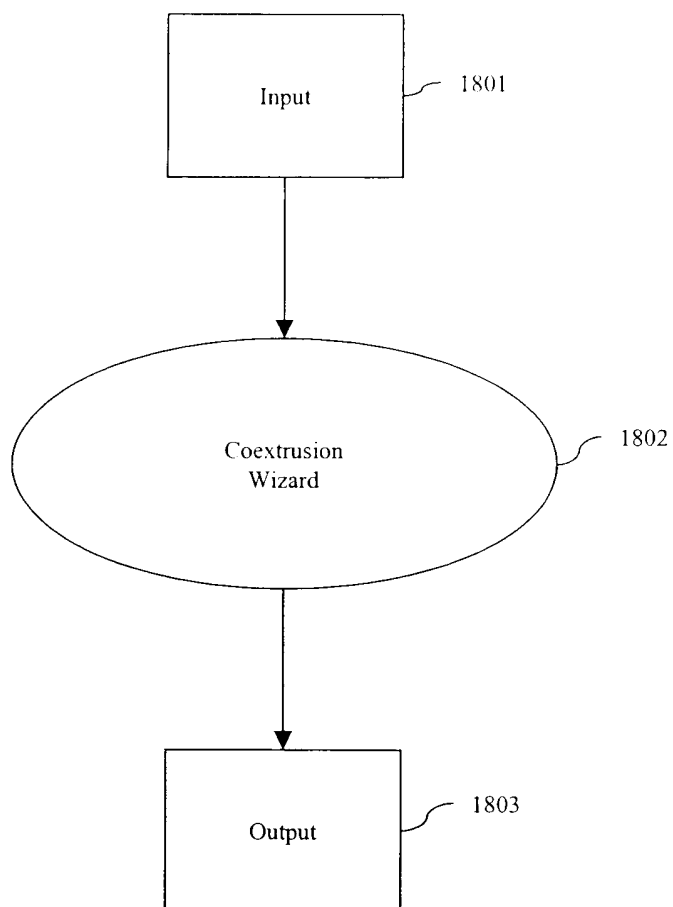


FIG. 18

Compare Search Help

Solvents Selection Criteria

For a list of all solvents select 'All' for each criteria and click Create Report.

Supplier: <input type="radio"/> All <input type="radio"/> Eastman	Flash Point: <input type="radio"/> All <input type="radio"/> Non-Flash ($\geq 60.5^{\circ}\text{C}$ (141°F)) <input type="radio"/> Flash ($< 60.5^{\circ}\text{C}$ (141°F))
Evaporation Rate: <input type="radio"/> All <input type="radio"/> Fast (≥ 3.0) <input type="radio"/> Medium (3.0 - 0.6) <input type="radio"/> Slow (0.6 - 0.12) <input type="radio"/> Very Slow (< 0.12)	Water Solubility: <input type="radio"/> All <input type="radio"/> Soluble <input type="radio"/> Insoluble
Nitrocellulose Solubility: <input type="radio"/> All <input type="radio"/> Active <input type="radio"/> Latent <input type="radio"/> Diluent	HAPS: <input type="radio"/> All <input type="radio"/> Eastman non-HAPs
Sort By: <input type="radio"/> Name <input type="radio"/> Flash Point <input type="radio"/> Evaporation Rate	Chemical Grade <input type="radio"/> All <input type="radio"/> Urethane <input type="radio"/> Trace Metals (< 10 ppb)

[Create Report](#) [Reset Criteria](#) [Return to e-Solvent Home Page](#)

FIG. 19A

Sort By:
☒ Name ☐ Flash Point
☐ Evaporation Rate

Solvents Report

Selection Criteria: Sorted By Name, Supplier = Eastman, Flash Point = Flash (<50.5°C (121°F)), Evap Rate = Fast (>=3.0), Water = All, Nitrocellulose = All, HAPS = All, Chemical Grade = All

Solvent	Eastman Product?	Evaporation Rate, nBuOAc = 1	Flash Point
<u>EASTMAN Acetone, High Purity Sales Grade</u>	Yes	6.3	20°C (-4°F)
<u>EASTAPURE Ethyl Acetate</u>	Yes	4.1	-4°C (24°F)
<u>EASTMAN Ethyl Acetate, 85-88%</u>	Yes	4.2	-3°C (27°F)
<u>EASTMAN Ethyl Acetate, Urethane Grade</u>	Yes	4.1	-4°C (24°F)
<u>EASTMAN Isopropyl Acetate</u>	Yes	3	2°C (35°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-13°C (9°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-15°C (9°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-13°C (5°F)
<u>EASTMAN Methyl Acetate</u>	Yes	6.0	-15°C (5°F)

[Return to Selection Page](#)

[Printer Friendly Report](#)

FIG. 19B

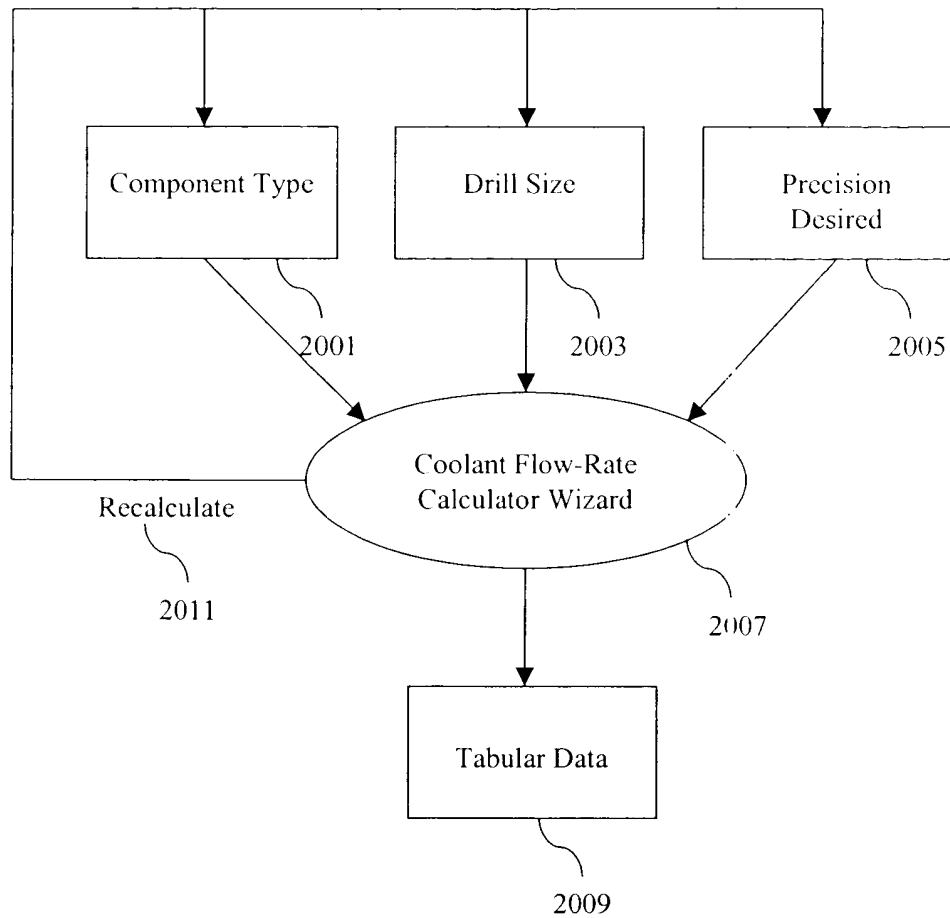


FIGURE 20A

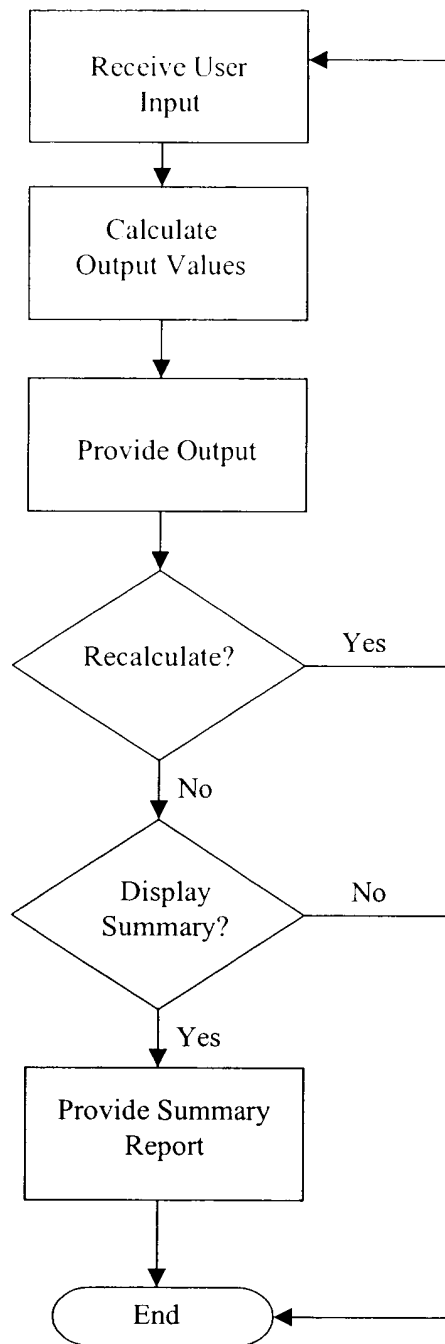


FIGURE 20B

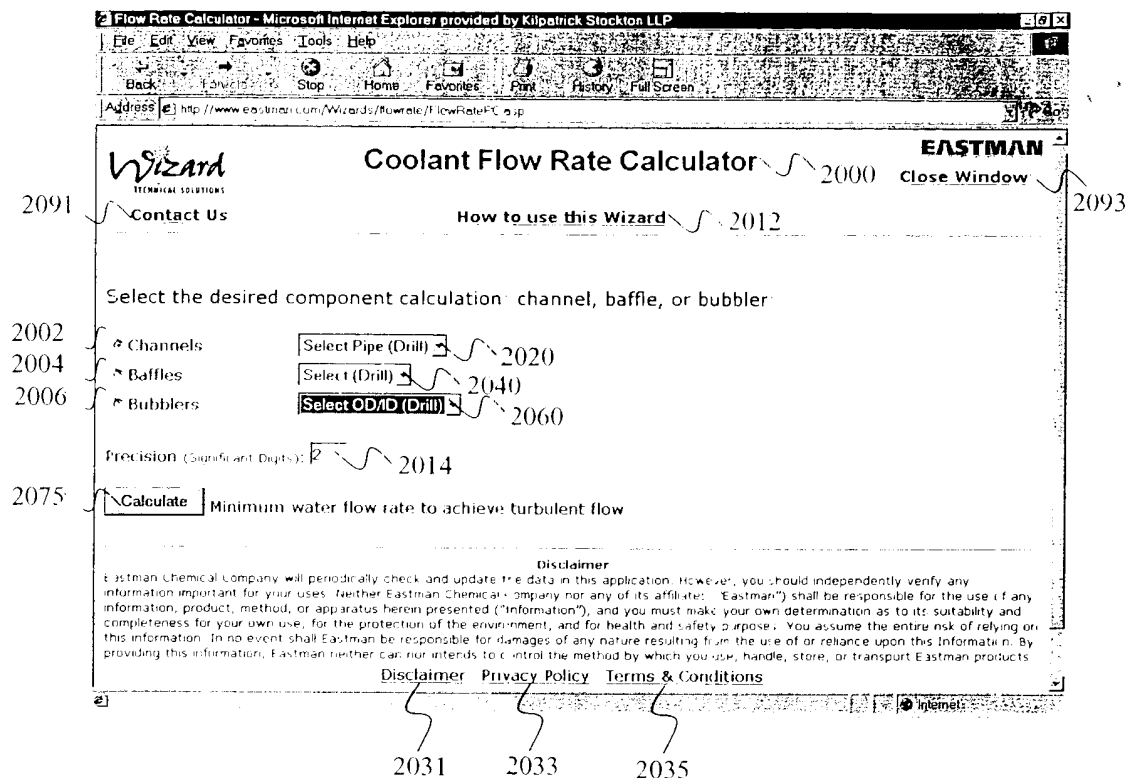


FIGURE 20C

2 Flow Rate Calculator - Microsoft Internet Explorer provided by Kilpatrick Stockton LLP

File Edit View Favorites Tools Help

Back Stop Home Favorites Print History Full Screen

Address http://www.eastman.com/Wizards/flowrate/FlowRateFC.asp

Wizard
TECHNICAL SOLUTIONS

Coolant Flow Rate Calculator 2000B **EASTMAN**

Contact Us How to use this Wizard Close Window Printer Friendly Report

Channel 3/8 (0.578) Baffle Select (Drill) Bubbler Select OD/ID (Drill)

Precision (Significant Digits): 2

2014 2075B ReCalculate

Minimum water flow rate to achieve turbulent flow 2080

Component = Channel; Selected Value = 3/8 (0.578); Precision = 2

Water Temperature (F)	Minimum Flow Rate (gpm)
40	1.69
50	1.44
60	1.23
70	1.08
80	0.94
90	0.83

Done Internet

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Done Internet

FIGURE 20D

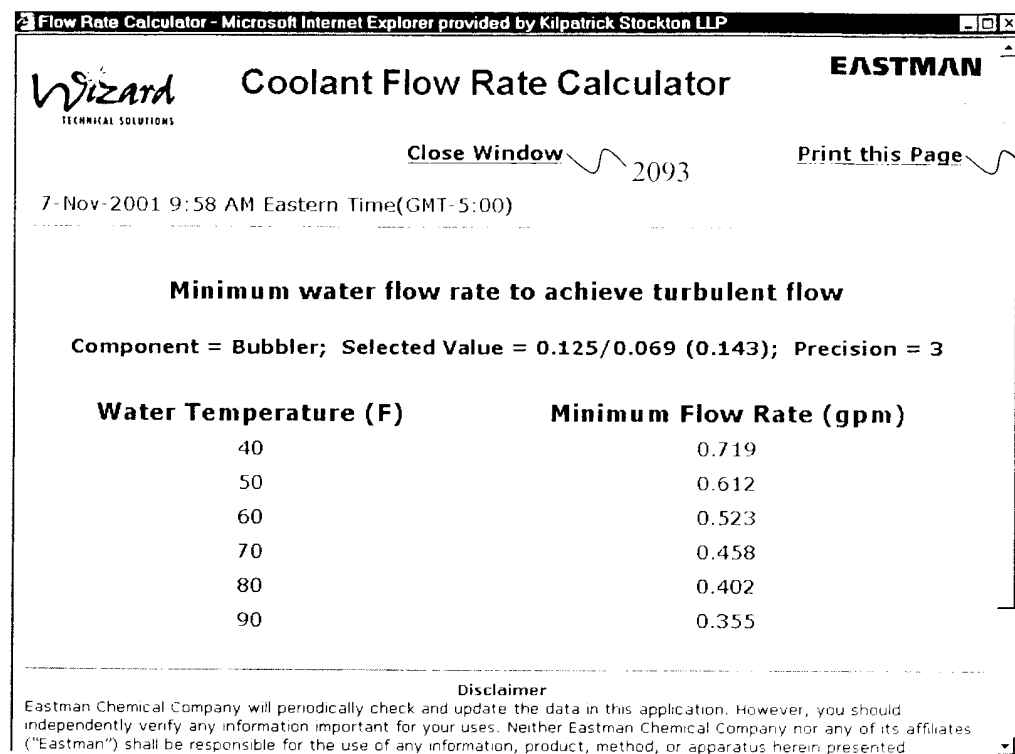


FIGURE 20E